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ABSTRACT

The current status of education for 1994 is presented in the form of education "indicators"--key data that measure the health of education, monitor important developments, and show trends in major aspects of education. The 60 indicators have been divided into 6 areas: (1) access, participation, and progress; (2) achievement, attainment, and curriculum; (3) economic and other outcomes of education; (4) size, growth, and output of educational institutions; (5) climate, classrooms, and diversity in educational institutions; and (6) human and financial resources of educational institutions. The report includes the text, tables, and charts for each indicator plus the technical supporting data, supplemental information, and data sources. Information on issues in elementary and secondary education are integrated with those on issues in postsecondary education to reflect the continuity of educational experiences. An overview synthesizes evidence from both the 60 indicators and other sources on 4 important education issues: access to preschool education; trends in the achievement and attainment of Hispanic students relative to whites; progress in the achievement and attainment of women; and the cost of higher education. Appendices contain 212 supplemental tables and notes, a list of data sources, a glossary, an index, and a list of National Center for Education publications. (LMI)

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THE CONDITION OF EDUCATION

1995

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THE CONDITION OF EDUCATION

1995

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The purpose of the Center is to collect and report "...statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education."—Section 402(b) of the National Education Statistics Act of 1994 (20 U.S.C. 9001).

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The National Center for Education Statistics (NCES) gathers and publishes information on the status and progress of education in the United States. The Congressional authorization for these activities (with antecedents to 1867) states that the purpose of the Center is to collect and report "...statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education."—Section 402(b) of the National Education Statistics Act of 1994 (20 U.S.C. 9001). This law also mandates an annual statistical report on the subject from the Commissioner of Education Statistics. This 1995 edition of *The Condition of Education* responds to the requirements of that law.

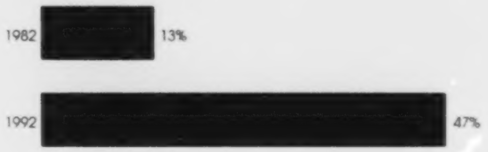
This report contains 60 indicators that shed light on the condition of education in the United States. These indicators represent a consensus of professional thinking on the most significant national measures of the condition and progress of education to date, but tempered by the availability of current, valid information. In the text that follows, I will summarize some of the positive developments in American education and point out areas that continue to raise concern. In addition, I will discuss what we know about school quality and describe how the conditions facing the schools have changed.

For some issues of public concern, however, there are no data available that can provide a satisfactory national picture of recent educational developments. One such area where additional work remains is in developing measures of learner outcomes that go beyond the core content areas. These might include measures of integrative reasoning and of attitudes such as tolerance, self-direction, and responsibility. A second area where work remains is in developing better measures of school quality and student learning opportunities.[1]

What are high school students studying and how are they performing?

In the 12 years since *A Nation At Risk* advocated tougher course requirements for high school graduation, states and students have responded dramatically. **High school graduates are taking more courses overall, particularly academic courses.**[2] The proportion of students completing the recommended core courses in English, math, science, and social studies has increased (*Indicator 25*), and a greater percentage is taking Advanced Placement (AP) courses.

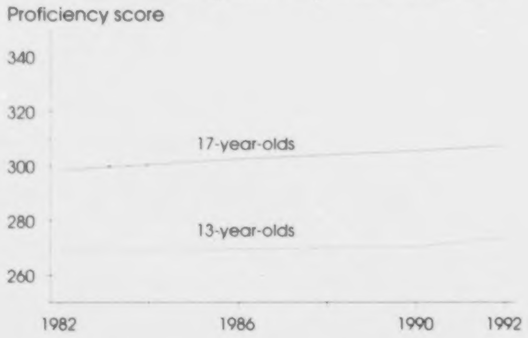
Percentage of high school graduates earning the recommended credits in *A Nation At Risk*



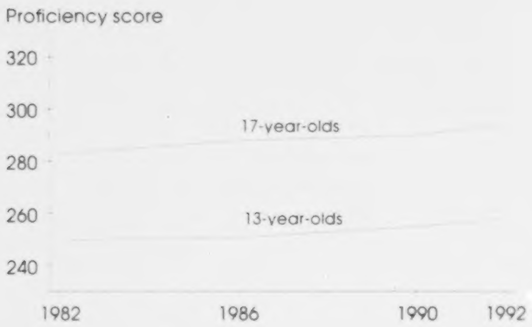
In addition, **more students are taking algebra, geometry, trigonometry, and calculus as well as advanced science courses, including chemistry and physics** (*Indicator 26*). Both college-bound and non-college-bound students are taking more foreign language courses than their counterparts did a decade before. Furthermore, as of 1990, 42 of the 50 states had raised course requirements for high school graduation since the publication of *A Nation At Risk*, and 47 states had mandated student testing standards.[3] Of course, these increases can only be considered good news if the content of these courses is at least as rigorous as it was when the National Commission on Excellence in Education made their recommendations. There is some evidence that it is, but we have no national data on the content of courses.[4]

It is also encouraging to see these improvements in high school course taking reflected in **gains in mathematics and science achievement**. Between 1982 and 1992, the mathematics and science proficiency scores of 17-year-olds on the National

Mathematics proficiency scores of students



Science proficiency scores of students



Assessment of Educational Progress (NAEP) increased (9 points on each assessment). One way to get a sense of how much improvement these gains represent is to compare them to variations in proficiencies between different-aged high school students. Using this comparison, we find that the improvement for 17-year-olds from 1982 to 1992 was roughly equivalent to an additional year or two of learning in high school (*Indicators 15* and *16*). These gains in NAEP proficiency scores are one indication that 17-year-olds in 1992 have made substantial progress in mathematics and science relative to their peers in 1982.

Although proficiency scores in reading and writing have not shown similar increases (*Indicators 13* and *14)*, **U.S. students compared favorably to those in other countries in an international assessment of basic reading literacy in 1991–92** (*Indicator 17*).

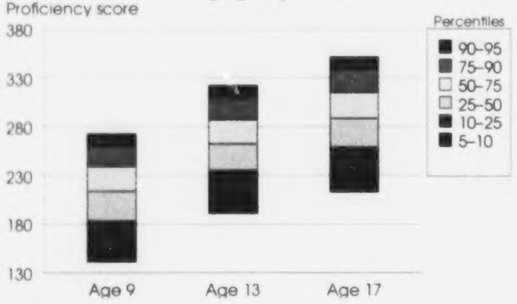
Low-performing students have also progressed academically since the publication of *A Nation At Risk*. For example, **dropout rates have declined** (*Indicator 6*); **fewer high school students are taking remedial mathematics courses before graduating** (*Indictor 26*); and the **mathematics and science proficiencies of the lowest performing 17-year-olds have increased** (tables 15-3 and 16-3). However, between 1984 and 1992, the reading and writing proficiencies of the lowest performing students remained relatively stable (tables 13-3 and 14-3).

Not only are **more students are taking AP examinations**, but the **science proficiency scores of the highest performing 17-year-olds have increased** (table 16-3). In addition, since the early 1980s, the reading and mathematics proficiency scores of the highest performing 17-year-olds have remained relatively stable (tables 13-3 and 15-3).

It is significant that even though the number of Scholastic Assessment Test (SAT) test-takers as a percentage of high school graduates has increased 8 percentage points since 1983, the average mathematics score has increased and the average verbal score has remained stable (*Indicator 20*). These findings are considered by many to be positive because increasing participation tends to push down scores.

When examining differences in averages across NAEP scores, we should keep in mind that the performance among students of the same age or in the same grade varies considerably. For example, in reading, mathematics, and science, many students score no higher at age 17 than many of their peers did at age 9, despite the fact that they differ by 8 years of schooling.[5] Schools must cope with this variation while trying to help each student learn as much as possible. It is not surprising, then, that there is also a large degree of variation across schools in the type of curriculum offered to students with different abilities and interests.[6]

Distribution of reading proficiency within age groups: 1992

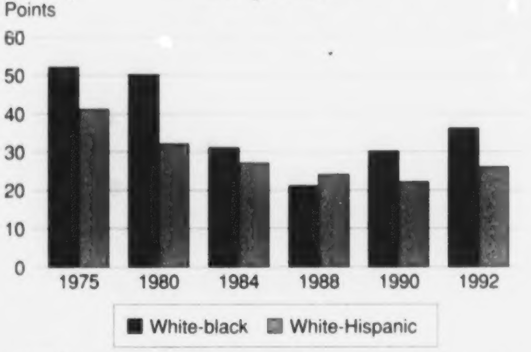


As a nation, we put great value on mathematics and science. Recently, this is evident in Goal 5 of the National Education Goals: "U.S. students will be first in the world in science and mathematics achievement." **Although, as noted above, the mathematics and science scores of U.S. students have increased since the early 1980s, they remain low compared to their counterparts in many other countries** (*Indicators 18* and *19*). Moreover, considerable variation exists across states. On the one hand, 8th grade students in some states perform as well as 13-year-old students from the best performing nations in an international comparison of mathematics achievement. On the other hand, students in other states are performing at levels similar to students in developing countries.[7]

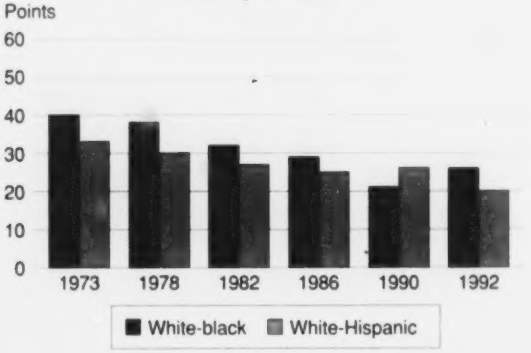
Another area of continuing concern is the academic achievement of minority students in elementary and secondary school. For example, in 1992, the average reading proficiency scores of black 17-year-olds were 36 points below white 17-year-olds and were similar to the average proficiency scores of white 13-year-olds. The white-Hispanic reading gap at age 17 was a little narrower. White-black and white-Hispanic proficiency score differences were of similar magnitudes in science, although they were smaller in mathematics (*Indicators 13, 15,* and *16*).

It is also worrisome that **despite a narrowing in the white-minority gap in achievement during the 1980s, particularly in mathematics, recent data raise the possibility that the gap is no longer closing.** For instance, the most recent (1994) NAEP results in reading suggest that minority groups lost some of the earlier gains they had made relative to whites.[8]

White-minority difference in reading achievement of 17-year-olds



White-minority difference in math achievement of 17-year-olds



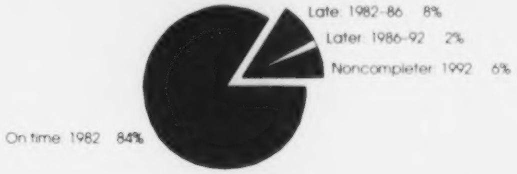
In addition to a narrowing in the white-minority achievement gap, there are other positive developments with regard to the achievement and attainment of black and Hispanic students. The indicators in this volume contain far more information on different subpopulations than has been reviewed here. For example, an essay reviewing the educational progress of Hispanic students begins on page 6 and an essay reviewing the educational progress of black students is contained in the 1994 edition. A review of the considerable educational advances made by women over the past several decades can be found starting on page 13.

Social scientists attribute much of the white-minority differences in achievement to the higher incidence of poverty in the families of minority children and the lower average educational levels of their parents. It is difficult for schools to compensate for such disadvantages. However, **there is evidence that extraordinary schools and teachers make a difference in how all students perform.** For example, research on early intervention and on one-to-one tutoring demonstrates that at-risk students can achieve at far higher levels than they have in the past.[9] There is also some evidence, particularly in math and science, that taking more challenging courses is related to higher performance and achievement.[10]

Are more young people finishing high school?

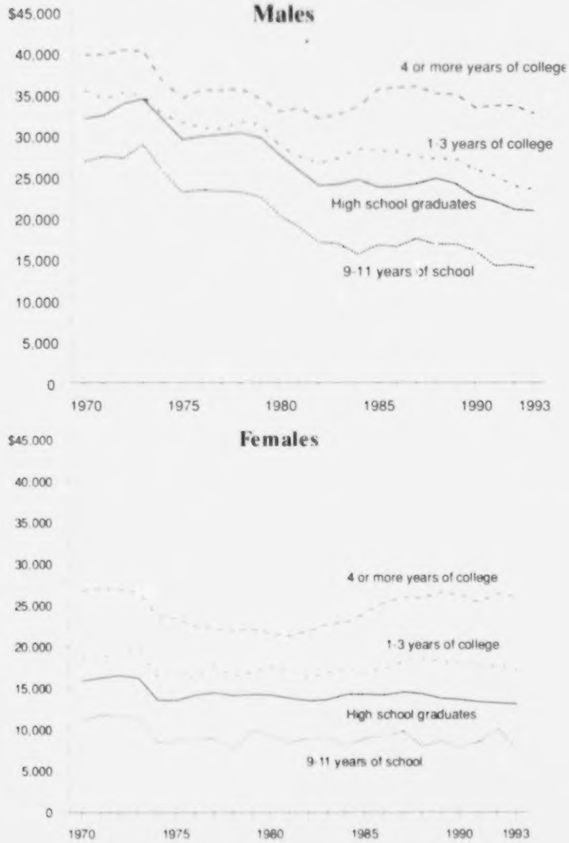
Despite curricular changes that may have made school more difficult, students are persisting in their studies. **Overall, the percentage of high school students who leave before graduating has gradually declined and differences between dropout rates for blacks and whites have also narrowed, although most of these changes occurred before the mid-1980s** (*Indicator 6*). This is encouraging because schools provide young people with the opportunity to explore their interests and develop their talents. It is also encouraging because staying in school is an important indication that a young person is learning to be a productive member of U.S. society and is less likely to suffer from poverty and unemployment (*Indicators 28* through *32*).

Time of high school completion for 1980 10th-graders



High school completion rates have gradually risen, and for some subgroups are near or over the 90 percent National Education Goal (*Indicator 22*). The rise is, in part, a result of greater student persistence in high school (discussed above), but may also be a result of more dropouts earning a GED credential. The rise is a positive development, but we must also be cautious because in today's economy a high school diploma or a GED credential may not be sufficient to avoid low earnings, unemployment, and, possibly, poverty. Since the early 1970s, the real wages of young adults with only a high school diploma or GED have declined (table 30-3), and the proportion of this group receiving AFDC or public assistance has increased (*Indicator 32*). The labor market opportunities for high school graduates are still better than those who complete 9–11 years of education, however.

Median earnings of wage and salary workers 25 to 34 years old (in 1994 constant dollars)

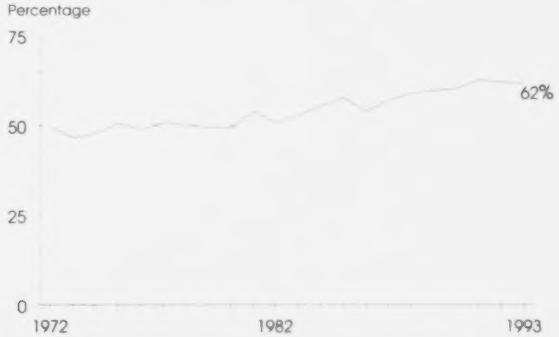


Are more young people going to college?

In 1992, the rates of attainment in higher education for U.S. men and women were among the highest in the world (*Indicator 23*).[11] This is an indication that higher education is broadly accessible in the United States in comparison to other countries. It is also an indication of the rewards to college attendance. Even though college graduates have faced a difficult labor market over the past few years, their job opportunities and earnings are much better than those of high school graduates. The earnings advantage has grown stronger throughout the 1980s, particularly for males (*Indicator 34*).

It is not surprising that despite a rapid rise in tuition levels (*Indicator 7*) **more high school graduates are choosing to go immediately to college after high school graduation** (*Indicator 9*). It should be noted, however, that enrollments do not always translate into completions.

High school graduates enrolling in college the October following graduation



Although, more students are going on to college after high school, the data show that **it is very common for college students to enroll, leave, possibly return, and not finish within the expected period of time**.[12] For example, in 1990, only one-quarter of first-year community college students were enrolled in some form of higher education the next year. And, about one-fifth of second-year community college students transferred to 4-year colleges or universities (*Indicator 10*).

Noncompletion is not necessarily an indication of failure or a waste of resources. Often students, particularly in the 2-year sector, enter and withdraw from college because of economic opportunities, or they may have begun a program with limited objectives that they were able to achieve. Also, many students attend part time, which can extend the time it takes them to complete a program. Nevertheless, the high rates of noncompletion and interrupted attendance may indicate that students do not have enough information about the actual skills in demand in the labor market before making decisions regarding their education. Moreover, they may have unrealistic views as to how much time, effort, and money will be needed to complete postsecondary education programs and acquire these skills.

High levels of participation in higher education are made possible by generally low tuition levels at public institutions and a financial aid system that is primarily based, particularly the federal component, on need. Average tuition and fees are also much lower at public institutions, where four out of five students are enrolled, than they are at private institutions (*Indicators 8* and *36*).

But to attend postsecondary education on a full-time basis requires that the student not only pay the direct costs of education but also finance living expenses. For example, the *total cost* a student had to finance, including both educational and living expenses, was about $9,200 for dependent full-time students attending public 4-year institutions in 1992–93. Total aid, including grants, loans, and work-study, reduced the amount that needed to be financed to $7,300. In addition, most financial aid is sensitive to family income, so this *net cost* was lowest ($5,070) for students from low income families and highest ($8,879) for those from high income families.

Although net cost varies a great deal with family income, the question remains whether it varies enough to make higher education equally affordable to all students. One way to answer this question is to estimate *unmet need* as net cost less "expected family contribution;" this is generally considered a reasonable and affordable amount for the family and student to contribute toward the cost of higher education, and it is also used by the student financial aid system. For dependent undergraduates attending 4-year colleges, unmet need is greater, especially when compared to family income, for students from low income families than for those from high income families. It appears that by this test, at least, **higher education is still more difficult for students from low and lower middle income families to afford than for those from upper middle and high income families.**

Costs incurred by dependent full-time undergraduates: 1992–93

	Tuition and fees	Total cost	Net cost
Public 2-year	$1,072	$6,410	$5,717
Public 4-year	2,947	9,187	7,326
Private 4-year	11,004	17,301	11,552

Net cost incurred by and unmet need of dependent full-time undergraduates, by family income: 1992–93

Family income	Net cost		Unmet need	
	Public 4-year	Private 4-year	Public 4-year	Private 4-year
All	$7,326	$11,552	$1,952	$4,171
Less than $27,000	5,070	5,872	3,132	4,425
27,000–44,999	6,426	8,590	2,429	4,980
45,000–59,999	7,598	10,407	1,784	4,204
60,000 or more	8,879	15,752	836	3,633

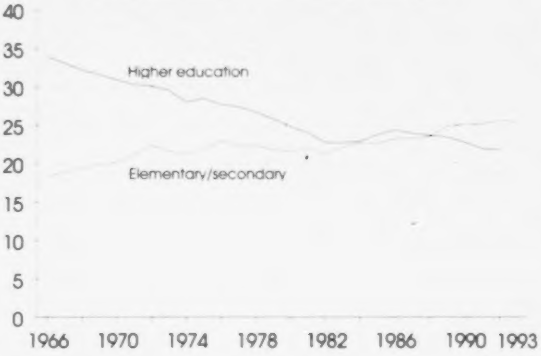
Clearly, the increasing enrollment rates and rising tuition costs are profoundly affecting the nature of higher education. First, colleges are providing much remedial instruction to students who arrive with weak academic skills.[13] This may indicate that more students who once would not have considered continuing on to higher education are now enrolling, even though they must take remedial courses. Second, the percentage of full-time college students who report working more than 20 hours a week has increased since the early 1980s (*Indicator 51*). Although working during the school year leaves less time for students to concentrate on their studies or to participate in extracurricular activities, some of the experience that students gain from working may benefit them after graduation. There is evidence, however, that working long hours while in college may reduce a student's likelihood of completing college or lengthen the time it takes for those who do complete it. Third, there is some evidence that college students are feeling increasingly stressed by the demands placed on them.[14]

What do we know about the quality of schools?

The information presented so far has been about students and what they are or are not achieving. Because of the impact of family income and support on student performance, academic achievement is only a partial indicator of the quality of the schools that U.S. students attend. But what can be said directly about the quality of schools? Are schools providing a safe and supportive environment so that student energies can be devoted to learning? Are schools attracting people with enthusiasm, creativity, and commitment to teaching and supporting them with competitive salaries and sustained professional development? These are also important aspects of school quality.[15] Without question, much work remains to be done to produce reliable statistical measures of school quality.

Expenditures per student are often used as a proxy measure of the quality of education. But, this can only be considered a crude measure, because the results of hundreds of studies that examine the relationship between spending and outcomes such as achievement test scores, dropout rates, and so forth are mixed.[16] Neither a strong nor consistent relationship is found. However, no one can deny the importance of money to build schools, hire teachers, buy textbooks, and otherwise acquire the resources needed to create a safe, supportive learning environment. Among these resources are the intangible qualities of dedicated teachers, principals, and parents who create the learning environment.

Revenues per student from public sources as a percentage of income per capita



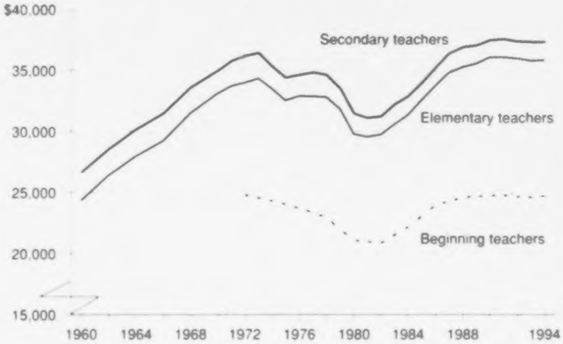
At the elementary and secondary levels, **revenues per student have increased substantially** since the early 1980s, a sign that even with the strains of slower economic growth, our nation is willing to continue supporting its schools (*Indicator 52*). Yet, **revenues per student vary widely across states**: state governments, not the federal government, have responsibility for funding education, and they vary in their capacity and willingness to do so. In addition, there is considerable variation within states because states delegate authority for operating and funding schools to local school districts. For instance, one estimate is that **the wealthiest districts have about 16 percent more cost-of-living adjusted revenue per student than the poorest districts.** However, other factors such as the educational needs of the students require consideration before disparities in the allocation of education resources can be adequately measured. Districts with a large percentage of school age children in poverty, however, do receive a much larger share of their revenue from federal and state sources than from local governments (*Indicator 53*).

An advantage of state and local funding of schools is that parents and citizens have more say in deciding how much education their children get and with what emphasis. A disadvantage is that wealth varies across school districts, leading to imbalances in the resources available to schools even when citizens are equally willing to fund them. This has resulted in complicated state formulas to assist poor school districts and many court challenges to state education financing systems as insufficiently compensatory. The supreme courts of several states have declared the state education financing system unconstitutional because of funding inequities, and more than half the states have cases pending. For example, as a result of a court challenge to its funding arrangements, Kentucky has completely overhauled its educational system from teacher certification requirements to governance structures. And Michigan recently decided to stop using the property tax to finance its schools, and instead to use a combination of income and sales taxes. Since poor school districts receive most of their revenue from the state, another disadvantage of state and local funding is that economic conditions may cause the state to change its support level at the very moment poor school districts need the funds the most.

Although the level and distribution of education resources is very important, it is equally important that the resources be used effectively. Teacher salaries are a major portion of the elementary and secondary budget, and good teachers are central to a high quality education system. Most of what we consider formal childhood education takes place in classrooms through interactions between teachers and students. Teachers are one conduit through which education and societal values are passed.

The pupil-teacher ratio has declined steadily since the mid 1950s.[17] Average teacher salaries in public schools were also higher in 1994 than in 1960 although most of the gain since 1981 only recouped losses incurred during the 1970s (*Indicator 57*). As most elementary and secondary teachers are women and the labor market opportunities of women have improved over the last two decades, larger increases in salaries may have been necessary for teachers, relative to those in other occupations, to keep teachers in teaching and to induce college students to choose teaching as a career. Nevertheless, using a variety of measures it appears that **teacher earnings are relatively low compared to those of many other professions that college students could pursue.**[18] Policymakers have expressed some concern over whether this discourages the best and the brightest students from choosing teaching as a profession. Evidence of this is mixed. **Some research indicates that those accepting teaching positions were more likely to have lower scores on the SAT and NTE** (National Teacher Examination) **than non-teaching college graduates** and that those leaving teaching were more likely to have higher SAT and NTE scores than those remaining.[19] Evidence from the 1992 National Adult Literacy Survey (NALS) points in the opposite direction, however. In NALS, **the prose literacy scores of teachers are similar to the scores of many of their colleagues in other professions**, including private sector executives and managers, engineers, physicians, writers and artists, social workers, sales representatives, education administrators, and registered nurses. With respect to at least prose literacy, there is little evidence that low salaries are attracting only the least able college graduates into teaching (*Indicator 59*).

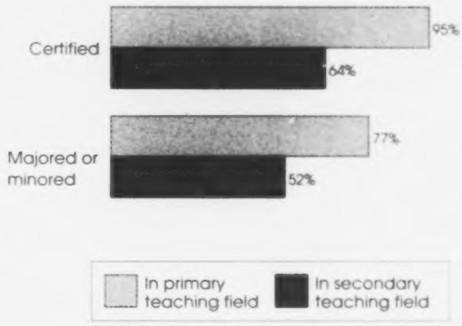
Average annual salaries of public school teachers (in constant 1994 dollars)



Although many of the characteristics that determine the quality of a teacher are not easily measured, some teacher qualifications can be measured. Many analysts argue that one of the most important characteristics is training and preparation in the subject or field in which the teacher is teaching. Research has shown moderate but consistent support for the reasonable proposition that subject knowledge (knowing what you teach) and teaching skills (knowing how to teach) are important predictors of both teaching quality and student learning.[20] Knowledge of subject matter and of pedagogical methods does not, of course, guarantee quality teaching, but it is a necessary prerequisite.

Almost all teachers are certified to teach in their primary assignment field, and a large majority have majored or minored in this field. In fact, most teachers have a graduate degree. About one-quarter of teachers has a secondary assignment field and lower proportions are certified or have majored or minored in this field (*Indicator 58*). **There is considerable variation in teacher qualifications across states**, however. For example, the percentage of high school mathematics teachers who majored in mathematics or mathematics education ranged from 44 percent in California to about 90 percent in Alabama and Minnesota.[21] Although teacher qualifications and credentials may be an indication of minimal competency, these may be poor measures of subject matter and instructional competence.

Certification and educational background of teachers in 1990–91



Considerable policy discussion has addressed the ability of schools to keep qualified teachers, both in general and in specific subject areas such as mathematics and science. **Overall, teacher attrition in public elementary and secondary schools seems to be low.** Only 1 in 20 full-time public school teachers left the teaching profession in a recent year. Furthermore, keeping mathematics and science teachers in the profession does not seem to be as big a problem as was once suggested. The percentage of full-time teachers in public secondary schools in 1990–91 who left teaching in the next year was no higher in mathematics and science than in other teaching fields (*Indicator 60*).

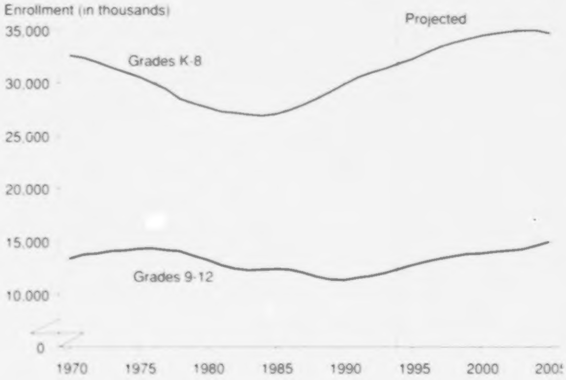
A high level of education and associated professional commitment among teachers benefits both students and the education system. These benefits come at a cost, however, because teachers must be paid enough to justify the investment they have made in their education. Nevertheless, education policymakers must address the more difficult issue of how to make best use of available resources under changing conditions.

How have conditions facing the schools changed?

Changing conditions that schools must confront are putting additional strains on revenues, even though revenues have increased.

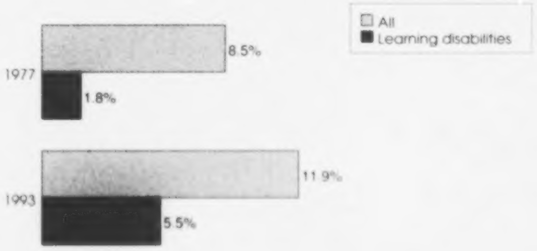
First, schools are facing a period of rising enrollments after a long period of decline (*Indicator 35*). It is important to monitor these increases because they will affect school budgets as well as policies of teacher recruitment and retention.

Public school enrollment



Second, many more disabled students, particularly those with learning disabilities, are receiving special services (*Indicator 42*). This has major financial implications for school districts. There is some evidence that the average cost of serving a special education student is as much as 2.3 times the cost of serving regular students (ranging from 1.9 times for students in resource programs to 10.6 times for students in residential programs).[22]

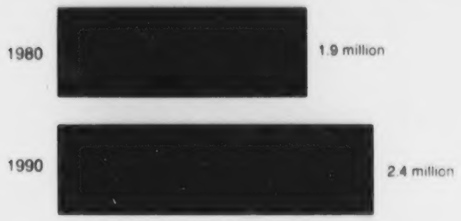
Children served in federally supported programs for students with disabilities



Third, many more students speak a language other than English at home and have difficulty speaking English, a likely indication that even more students may have difficulty reading and writing English.[23]

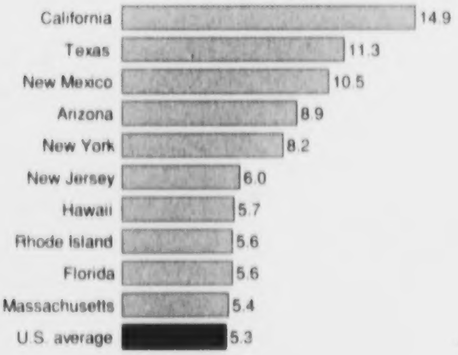
By law, school systems nationwide must provide services for children from non-English-language

Children who have difficulty speaking English



backgrounds. Because these students are disproportionately concentrated in a few states (California, Texas, New Mexico, Arizona, and New York), the education systems in these states are under particular strain to respond to the special needs of these children.

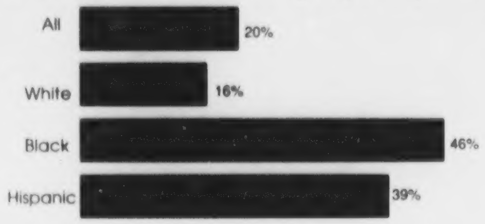
Percentage of children who have difficulty speaking English



Fourth, many children live in poverty (22 percent or 14.6 million), and these children typically live in neighborhoods and attend school together. Thus, the schools in these neighborhoods are also facing heavy demands.

Fifth, crime in the schools remains a problem. Violence in and around schools directly affects educators and students by reducing school effectiveness and inhibiting students' learning. In 1993, more than one in five high school seniors were threatened at school. However, between 1976 and 1993, there was little change in victimization rates in schools, except for a slight increase in the percentage of students who reported being threatened, both with and without a weapon. And although generally few differences were seen in school victimization rates among black and white high school seniors, black seniors were more likely than their white counterparts to have been threatened with a weapon at school (24 versus 14 percent, *Indicator 47*).

Percentage of children living in poverty in 1992



As this discussion indicates, there is not one answer to the complex question of whether the condition of education is improving. Some conditions are improving, while others are not. In a number of areas, research has not been able to disentangle the influences of several factors, so we cannot be certain whether conditions are actually improving or not. However, this volume can help Americans interested in education policy to pose more sophisticated questions. In doing so, we can make progress toward understanding what produces high quality educational institutions, an educated citizenry, and a skilled work force.

EJ Elliott

Emerson J. Elliott
Commissioner of Education Statistics

NOTES:

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[22] See M.T. Moore, E.W. Strang, M. Schwartz, and M. Braddock. *Patterns in Special Education Service Delivery and Cost*. Contract Number 300-84-0257. Washington, D.C.: Decision Research Corporation, 1988; and S. Chaikind, L.C. Danielson, and M.L. Brauen. "What Do We Know about the Costs of Special Education: A Selected Review." *Journal of Special Education*, 26(4) (1993): 344–370.

[23] *The Condition of Education 1994, Indicator 46.*

[15] *Education Counts*, 1991.

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Overview

> "Why do we seek to know the condition of education? In the answer to this question will be found the reasons for the elaborate statistical record which forms a feature of all official school reports. We take an account of education so that we may know whether it is sufficient in amount and good in quality."
>
> Henry Barnard
> First Commissioner of Education

Introduction

During the 1980s, the country became increasingly aware of a range of critical national issues facing education. These issues included concerns about all children having an equal opportunity to receive a high quality education, general low academic performance, drug use and violence in the schools, unacceptably high dropout rates, the high cost of a college education, and the skills of workers lagging behind technological changes in the workplace. The 1990s have continued the emphasis expressed in the 1980s, with renewed concern over academic standards and school finance reform. These concerns continue to have serious implications, not only for schools and colleges but also for the future of individual citizens, U.S. economic competitiveness, and ultimately the structure and cohesiveness of American society and culture.

The Condition of Education provides a means to report where progress is being made in education and where it is not, to draw attention to emerging issues, and to inform the ongoing policy debate.

The structure of *The Condition of Education*

A quick tour of the volume may help readers make the best use of it. The core of the volume consists of 60 indicators. Each indicator is presented on two pages, with findings summarized in accompanying text, tables, and graphics. Also included in the back of the volume are supplemental tables providing additional details, and sometimes an explanatory note on a technical or data-related issue.

The 60 indicators are organized into six sections:

- Access, Participation, and Progress;
- Achievement, Attainment, and Curriculum;
- Economic and Other Outcomes of Education;
- Size, Growth, and Output of Educational Institutions;
- Climate, Classrooms, and Diversity in Educational Institutions; and
- Human and Financial Resources of Educational Institutions.

Instead of separating the indicators on elementary and secondary education from those on postsecondary education, the volume integrates issues ranging from early childhood education to postsecondary education into each of the six sections.

One can find information on an issue either by turning to the table of contents, which lists the 60 indicators, or by using the index, which references not only the indicators but also the supplemental tables. When an updated indicator is not available in this volume, the index lists the indicator number and edition of *The Condition of Education* that last published an indicator on that topic.

Preceding each section of indicators is a two-page overview that interprets and summarizes some of the findings in that section as they relate to an important issue. In addition, this overview summarizes results drawn from throughout the volume as they relate to particular issues that cut across the six sections.

At the bottom of each indicator page, readers can locate the source of the data for the indicator. The indicators presented in this report have been developed using data from studies carried out by NCES as well as from surveys conducted elsewhere, both within and outside of the federal government. A description of each source is provided starting on page 455. Sometimes more knowledge about the type of survey used to gather the data can help readers interpret the indicator. Because some of the terms used may not be familiar to all readers, a glossary is provided starting on page 485.

In the remainder of this section, we pull together evidence from both the 60 indicators and other sources on four important education issues:

- Access to preschool education;
- Trends in the achievement and attainment of Hispanic students relative to whites;
- Progress in the achievement and attainment of women; and
- The cost of higher education.

These issues were selected, first because of their importance to current policy discussions, and second because a substantial amount of new information on these issues has been included in this volume and other recent NCES publications. In the 1994 edition of the *Condition*, essays were included on high school students 10 years after *A Nation At Risk*; teachers as an educational resource; the educational progress of black students; and sub-baccalaureate postsecondary education.

References to indicators and tables contained in this volume appear in parentheses. The tables cited are in the supplemental tables section, which start on page 169. Occasionally, there are references to indicators found in a previous edition of *The Condition of Education;* these can be recognized by the year following the reference. References to sources other than *The Condition of Education* are footnoted.

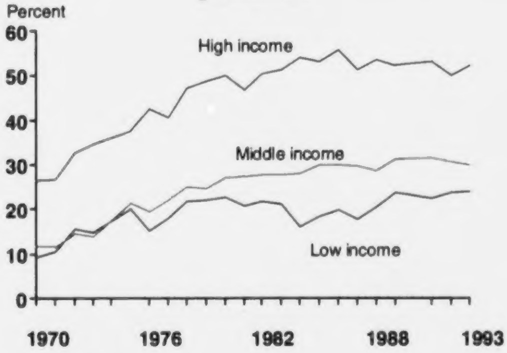
Access to preschool education

Today, many parents enroll their children in some form of preschool, which means that kindergarten is no longer the child's first experience with group educational programs. Many early childhood experts believe that children who have been involved in high quality group care or nursery school are better prepared for formal schooling. There is substantial evidence of the short-term effects (e.g., achievement test gains) of attending a high quality early childhood program, and there is some evidence of long-term effects (e.g., an increased likelihood of completing high school).[1] The National Education Goals stress the importance of access to quality early childhood programs. Goal 1 states, "By the year 2000, all children will start school ready to learn." This goal underscores the role that children's early experience plays in preparing them for successful schooling. Thus, the first objective associated with this goal states that all disadvantaged and disabled children will have access to high quality and developmentally appropriate preschool programs that help prepare them for school. Differences in enrollment rates in early childhood education across family income and race/ethnicity may indicate differential access to this important educational resource. Differences in the knowledge and behaviors of students in these subgroups may be associated with variability in the quantity and quality of early childhood care and instruction.

Do enrollment rates in preschool differ by family income?

Children from lower income families have lower participation rates in preschool. In 1973, the enrollment rates in preschool for 3- to 4-year-olds from low income families was about 20 percentage points lower than those of their counterparts from high income families (15 versus 35 percent). By 1993, enrollment rates for children from both income groups had increased, and the gap between those from low and high income families widened to 28 percentage points (24 versus 52 percent) (*Indicator 2)*. The Head Start program has substantially increased the proportion of low income children enrolled in preschool; however, in the early 1990s, it still served fewer than one-half (40 percent) of eligible 4-year-olds, and fewer than 20 percent of eligible 3-year-olds.[2]

Percentage of 3- to 4-year-olds enrolled in preschool

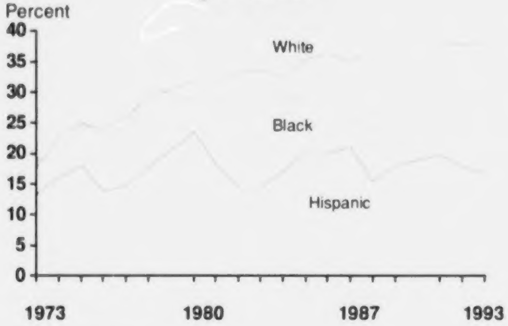


SOURCE: *Indicator 2.*

Do enrollment rates in preschool differ by race/ethnicity?

During the mid-1970s, preschool enrollment rates among white and black 3- to 4-year-olds were similar. However, due mostly to increases in preschool enrollment of white 3- to 4-year-olds in the 1980s, average enrollment rates for white preschoolers were nearly 8 percentage points higher than those of blacks and 22 percentage points higher than those of Hispanics by 1993. It should be noted, however, that although white 3- to 4-year-olds were more likely than blacks and Hispanics to be enrolled in preschool, blacks and Hispanics were more likely than whites to be enrolled in kindergarten at that age. As a result, a similar percentage of blacks and whites were enrolled in some type of school program at age 3–4 in 1993. Hispanic school enrollment rates were still substantially lower that year (table 2-1).

Percentage of 3- to 4-year-olds enrolled in preschool

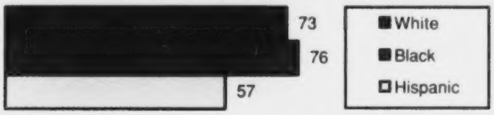


SOURCE: *Indicator 2.*

How do these enrollment rates change under a broader definition of early childhood education?

Early childhood experts argue that children learn in a variety of settings, and the distinction between "nursery school" (or preschool) and "child care centers" based upon their presumed differential emphasis on educational activities is not meaningful.[3] Participation rates of white and black students become indistinguishable when the definition of early childhood education is broadened to include all center-based programs, including day care. For example, in 1993, 73 percent of white first-graders and 76 percent of black first-graders had attended center-based programs before entering kindergarten.[4] A smaller proportion of Hispanic first-graders (57 percent) had participated in these programs, however (*Indicator 3*).

Percentage of first-graders who participated in center-based early childhood programs before kindergarten: 1993



SOURCE: *Indicator 3.*

As with preschool enrollment, students from families with high incomes were more likely to participate in center-based early childhood programs than were students from families of more moderate means. For example, first-graders whose families had incomes greater than $35,000 were more likely to have attended a center-based early childhood program before kindergarten than first-graders whose families had incomes of $35,000 or less. Among those who attended such programs, students from families with higher incomes were more likely to attend them for at least 2 years than were students from families with lower incomes (*Indicator 3*).

How do the enrollment rates in preprimary education in the United States compare to rates in other countries?

The number of years in which children typically participate in school before first grade varies greatly across countries. The average duration of preprimary enrollment, which includes enrollment in both preschool and kindergarten in the United States, ranges from .5 years in the United Kingdom to 3.4 years in France. The

Enrollment rates in public and private preprimary education: 1992

Country	Age 3	Age 4	Age 5	Average duration of preprimary education (in years)
	(percent)			
Canada	—	46	69	1.2
United States	29	53	83	1.8
Japan	23	58	66	1.5
France	99	101	100	3.4
United Kingdom	37	13	0	0.5
Former West Germany	31	69	79	2.6

—Not available.
SOURCE: OECD, *Education at a Glance*, 1995, table P02.

average duration of preprimary enrollment in the United States is 1.8 years. The average duration of preprimary enrollment is affected by the supply of and demand for preprimary education in each country as well as the normal starting age of primary education (first grade in the United States). For example, in the United Kingdom, where preprimary enrollment rates are relatively low at ages 4 and 5, the enrollment rates in primary education are relatively high (78 percent at age 4 and 99 percent at age 5). Canada also has a significant proportion of 5-year-olds enrolled in primary education (30 percent).[5]

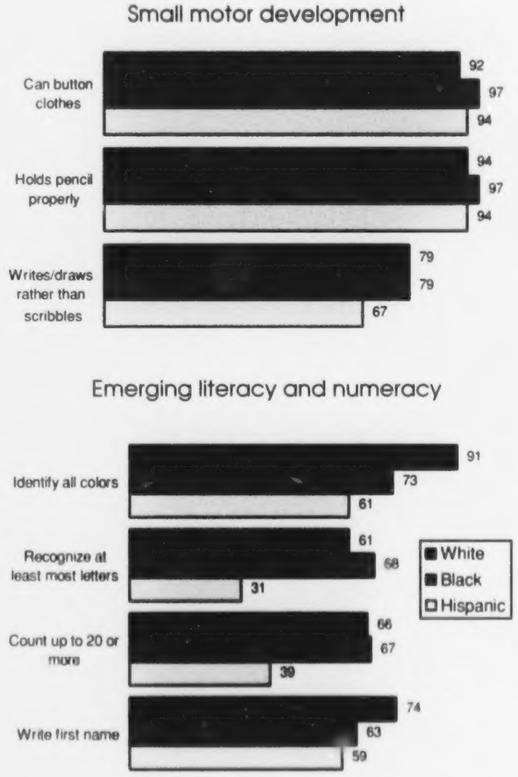
How do the skills and behaviors of children vary before kindergarten?

There are varying opinions about what skills children should possess upon entering kindergarten. Some believe that children should simply be physically and mentally healthy, while others feel it is important for students to have rudimentary skills with such things as numbers, letters, and colors.[6] Children arrive at kindergarten with a wide variety of skills and experiences, and schools must develop programs that are sensitive to these differences. Understanding the wide range of developmental skills in kindergarten classes is an important first step to providing a quality education to the entire range of students.

A majority of parents indicate that their 4-year-olds were able to identify all colors (84 percent), recognize most letters (57 percent), count to at least 20 (62 percent), write their first name (70 percent), button their clothes (93 percent), hold a pencil properly (94 percent), and write or draw rather than scribble (table 4-1).

At age 4, a greater percentage of whites were able to identify all colors than were blacks or Hispanics. However, blacks were more likely than whites to demonstrate the ability to hold a pencil properly and button their clothes. Both black and white 4-year-olds were more likely than their Hispanic counterparts to recognize most letters of the alphabet, count up to at least 20, and write or draw rather than scribble. The parents of Hispanic 4-year-olds were also more likely than the parents of white and black 4-year-olds to indicate that their child fidgets a lot, has a short attention span, and often has tantrums (table 4-1).

Percentage of 4-year-olds not in kindergarten with selected skills: 1993



SOURCE: *Indicator 4.*

Furthermore, many of the skills of 4-year-olds are strongly associated with level of family income. For example, students from families with incomes above $35,000 were more likely to be able to identify all colors and to recognize most letters of the alphabet than were students from families with incomes less than or equal to $35,000. Differences in social and emotional development and in speech development were also associated with family income (table 4-2).

In summary, preschool attendance rates differ by race/ethnicity and level of family income, although some of these differences attenuate when the definition of early childhood education is expanded to include all center-based care. Moreover, the average duration of preprimary enrollment varies across countries. The average duration of preprimary enrollment in the United States is shorter than among students in France, but longer than among students in the United

Kingdom. The skills that children bring to kindergarten also vary by both race/ethnicity and family income, although opinions about how well-prepared children should be upon entering school vary widely.

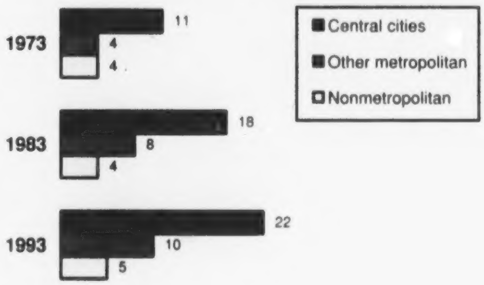
Progress in the achievement and attainment of Hispanic students

Education has always been seen as one means of upward mobility, especially for those who are socially and economically disadvantaged. Hispanic children are likely to be at an educational disadvantage relative to whites for several reasons, including lower average levels of parental education and a greater likelihood of living in poverty. A larger percentage of Hispanic students attend disadvantaged schools where the overall academic and supporting environments are less conducive to learning.[7] In addition, a much higher proportion of Hispanics than non-Hispanics are foreign born. As a result, Hispanic children are less likely to hear or speak English at home and are more likely to have limited English proficiency. Furthermore, Hispanic children are much more likely to experience poverty than white children. In 1992, 39 percent of Hispanic children compared to 16 percent of white children lived in families with an income level below the poverty line (*Indicator 47, Condition 1994*).

Although limited data availability often leads researchers to treat Hispanics as if they were a homogeneous group, the U.S. Hispanic population is diverse. The three largest Hispanic subgroups are Mexican Americans, Puerto Ricans, and Cubans. Recent immigrants from Central and South America constitute a fourth group. These subgroups are concentrated in different parts of the United States, their economic circumstances vary, and the timing of their immigration differs. In this overview, the additional breakouts for the largest Hispanic subpopulations will be made when possible.

Hispanics are the fastest growing ethnic group in the United States, increasing from 6 percent of public school enrollment in 1972 to 12 percent in 1993. In 1993, 2 out of 10 students attending public schools in central cities of metropolitan areas were Hispanic, up from 1 out of 10 students in 1972. In public schools located in other parts of metropolitan areas, 10 percent of the student body was Hispanic in 1993; in private schools, 7 percent was Hispanic (*Indicator 40*). Furthermore, the ethnic isolation of Hispanic students rose between 1968 and 1992. For example, between 1968 and 1992, the percentage of Hispanic students attending schools that were 90 to 100 percent minority increased from 23 to 34 percent.[8]

Percentage of public school students who are Hispanic



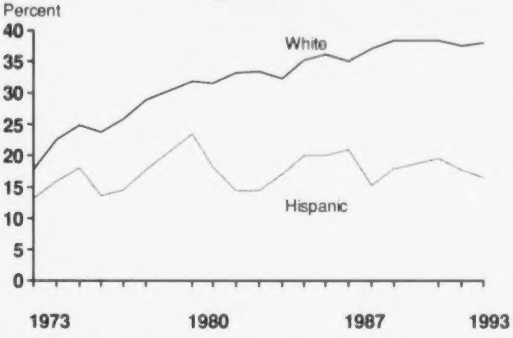
SOURCE: *Indicator 40.*

In many regards, Hispanics trail their white counterparts with respect to educational access, achievement, and attainment, although some of these differences have narrowed over time. Outlined below are some examples of the educational differences between Hispanics and whites with respect to preschool attendance, academic achievement, dropout rates, parental involvement, school climate, course-taking patterns, educational aspirations, college attendance and completion, labor market outcomes, and adult literacy levels.

Do Hispanic children start elementary school with less preschool experience than white children?

Hispanic and white children differ greatly in their extent of participation in education before kindergarten. Several federal programs, such as Head Start, a popular program for disadvantaged preschoolers, were launched to give children from low income families an early start in education. Yet, despite these programs, fewer Hispanic children are enrolled in preschool than white children, and the gap has widened over time. In 1993, 17 percent of Hispanic 3- and 4-year-olds were in preschool programs compared to 35 percent of white children. Since the mid-1970s, white enrollment rates in preschool have increased more than 10 percentage points, while Hispanic enrollment rates have fluctuated, with the rate in 1993 approximating that in 1973 (table 2-1).

Enrollment rates of 3- to 4-year-olds in preschool



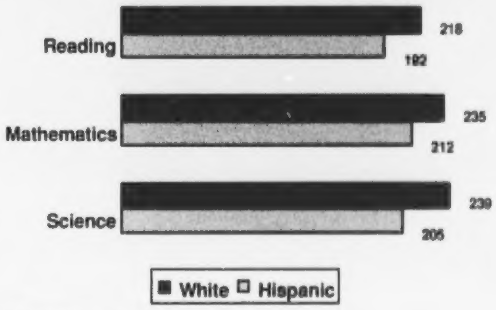
SOURCE: *Indicator 2.*

One possible explanation for the Hispanic-white difference in preschool participation is that the provision of preschool education is not mandatory; it is usually not offered in public schools, whereas kindergarten typically is. Limited financial resources may make it difficult for many Hispanic families to afford private preschool tuition. In 1991, a far lower proportion of Hispanic preschool students (27 percent) were enrolled in private preschools than were white preschool students (68 percent) (table 3-2, *Condition 1994*). Hispanic 3- and 4-year-olds were, however, twice as likely as their white counterparts to be enrolled in kindergarten, 10 and 5 percent, respectively, in 1993 (table 2-1).

Does the academic performance of white and Hispanic students differ in the early grades?

As early as age 9, differences can be seen in the academic performance of Hispanic and white students. Academic proficiency in reading, mathematics, and science, as measured at age 9 by the National Assessment of Educational Progress (NAEP), is lower for Hispanic children than for white children (*Indicators 13, 15,* and *16*). Although scores for Hispanic 9-year-olds have increased in mathematics and science over the past 15 to 20 years, there has been little change in the gap between the scores of white and Hispanic 9-year-olds over this time period.

NAEP scores of 9-year-olds in 1992



SOURCE: *Indicators 13, 15,* and *16.*

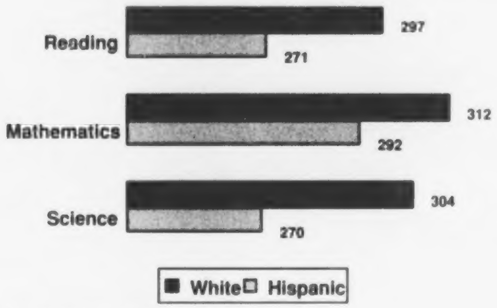
At age 13, the achievement gap between Hispanic and white students persists for reading, mathematics, and science, even though the gap in mathematics and science has narrowed over the past 15 years or so. In reading, the gap in scores for Hispanic and white 13-year-olds was about 30 scale points in 1975 and 1992 (*Indicator 13*). The achievement gap in mathematics narrowed between the mid-1970s and early 1980s, but has remained stable since then (*Indicator 15*). Finally, the science achievement gap narrowed considerably between 1977 and 1992 as the scores of Hispanic students showed sizable gains (*Indicator 16*).

Despite the gains Hispanic 13-year-old students have made, the Hispanic-white mathematics, reading, and science achievement gaps remain large. For example, in 1992, the average mathematics proficiency scores of Hispanic 13-year-olds (259) fell about midway between the average proficiency scores of white 9- and 13-year-olds (235 and 279, respectively). This gap suggests that on average Hispanic children's level of math skills may be as much as 2 years behind that of their white peers by age 13—a deficiency that they will carry with them into high school. The size of the gap was similar in reading and was even worse in science, with Hispanic 13-year-olds scoring at about the same level (238) as white 9-year-olds (239).

Does the gap in achievement that we see between whites and Hispanics at age 13 persist in high school?

When students were tested again near the end of high school, their NAEP scores indicate a large gap in reading, writing, science, and mathematics achievement between whites and Hispanics. The Hispanic-white gap in reading and mathematics, however, has narrowed over time. For example, in 1975, average reading proficiency among Hispanics at age 17 was well below (40 scale points) that of 17-year-old whites and also below (10 scale points) that of 13-year-old whites; in 1992, the proficiency gap was less (26 scale points) between Hispanic and white 17-year-olds, and the reading level of 17-year-old Hispanics was about the same as that of 13-year-old whites (*Indicator 13).* Most of these gains in reading were made by 1984, however.

NAEP scores of 17-year-olds in 1992



SOURCE: *Indicators 13, 15, and 16.*

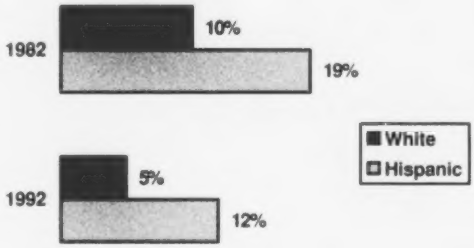
The gap between the mathematics proficiency of Hispanic and white high school students has also narrowed over time, although the difference remains large. In 1973, average mathematics proficiency among 17-year-old Hispanics was 33 scale points behind that of their white counterparts, and about the same as that of 13-year-old whites; in 1992, it was 20 scale points behind that of 17-year-old whites, and 13 scale points above that of 13-year-old whites (*Indicator 15*).

There is strong evidence that the Hispanic-white achievement gap seen at age 17 in reading, mathematics, and science begins as early as age 9. For example, the Hispanic-white differences in reading at ages 9 in 1984, 13 in 1988, and 17 in 1992 are 30, 21, and 26 scale points, respectively. In other words, the large achievement gap observed for this cohort was present at age 9, and it remained with age.

Are fewer Hispanic students dropping out of high school now than previously?

Fewer Hispanic teenagers are dropping out of high school before graduating. Although the dropout rate is still considered high by many educators, the 10th- to 12th-grade dropout rate among Hispanics (12 percent) was substantially lower in 1992 than it was a decade earlier (19 percent).[9] The reasons that both Hispanics and whites gave for leaving school were more often school-related than job- or family-related concerns. Three out of 10 Hispanic female dropouts reported leaving school because they were pregnant, about the same proportion as white females.[10]

Tenth- to 12th-grade dropout rates



SOURCE: NCES, High School and Beyond study and the National Education Longitudinal Study of 1988.

With a lower proportion of Hispanic high school students dropping out, one might expect the percentage of 16- to 24-year-old Hispanics who have *not* completed high school or earned a GED (the status dropout rate) to have declined. However, there was no measurable decline in the status dropout rate for Hispanics between 1972 and 1992.[11] This may be due, in part, to high dropout rates for Hispanics before 10th grade,[12] and high immigration rates for less educated Hispanic young adults who may never enter U.S. schools.

Are Hispanic dropout rates related to migration?

The length of time a Hispanic family has lived in the United States is strongly related to dropout rates for students in that family. In 1989, 43 percent of Hispanic 16- to 24-year-olds born outside the 50 states and the District of Columbia had not completed high school or a GED. The status dropout rates for first and at least second generation Hispanic Americans were considerably lower (17 and 24 percent, respectively). It should be noted, however, that Hispanic dropout rates are still double those of non-Hispanics when the length of residency in the United States is taken into account. In other words, high status dropout rates among Hispanics are not just a problem associated with recent immigration.[13]

Status dropout rates among 16- to 24-year-olds: November 1989

Recency of migration	Total	Hispanic	Non-Hispanic
		(percent)	
Total	13	31	10
Born outside 50 states and D.C.	29	43	8
First generation	10	17	6
Second generation or more	11	24	11

SOURCE: Current Population Survey, 1989.

How do dropout rates vary among Hispanic subpopulations?

Compared to the status dropout rate for all 16- to 24-year-old Hispanics in 1989 (31 percent), the dropout rates for Mexican Americans (36 percent) and Puerto Ricans (32 percent) were similar. However, the dropout rates for "other Hispanics" (19 percent) and Cubans (9 percent) were much lower.[14]

Mexican Americans made up about 64 percent of the Hispanic population in 1989, and about 74 percent of all Hispanic dropouts in this age group. Among Mexican Americans born elsewhere, the dropout rate was 55 percent; this subgroup accounted for about 48 percent of all Hispanic dropouts.

How does the learning environment of Hispanic and white students differ?

Research indicates that a safe and orderly school environment is key to effective learning. A student's achievement can be affected by the degree to which the school maintains such an environment. In 1992, Hispanic seniors were more likely than white seniors to report that disruptions by other students interfered with their learning, that fights often occurred between different racial/ethnic groups, and that they did not feel safe at their school.[15] Furthermore, Hispanics were almost three times as likely as whites to report that there were many gangs in their school. Hispanics were no less likely than whites, however, to report that in their school "discipline is fair," the "teaching is good," and that "teachers are interested in students."

Twelfth-graders' attitudes about school climate: 1992

	Percent who strongly agree or agree		
Statements about school climate	Total	Hispanic	White
Discipline is fair	68	75	68
Teaching is good	85	89	85
Teachers are interested in students	82	84	82
I don't feel safe at this school	10	15	9
Disruptions by other students interfere with my learning	33	40	31
Fights often occur between different racial/ethnic groups	23	32	21
There are many gangs in school	16	36	13

SOURCE: NCES, National Education Longitudinal Study of 1988.

Are the parents of Hispanic students more or less likely than those of white students to be involved in their children's education?

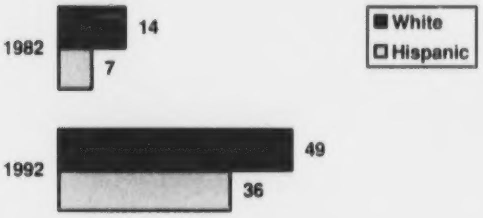
The degree to which parents are involved in their children's education is also crucial to effective schooling. Although the vast majority of eighth-grade students reported in 1988 that they talk to their parents about school, Hispanic eighth-graders were slightly less likely than their white peers to talk with their parents about school activities, class studies, or selecting courses. Similar percentages of Hispanic and white students had parents who checked their homework and limited their going out with friends. Hispanic eighth-graders, however, were more likely than their white counterparts to report that their parents had limited their television viewing and that their parents had visited their classes (*Indicator 43, Condition 1994*).

Parents of both Hispanic and white 12th-grade students reported in 1992 that they were more likely to be contacted by school personnel regarding the academic performance of their child than about their child's behavior. In general, parents of both Hispanic and white 12th-graders were contacted by school personnel for similar reasons; however, parents of Hispanic children were less likely to be asked to volunteer at school (table 44-1).

Are the course-taking patterns of white high school graduates different from those of Hispanic graduates?

The racial/ethnic background of students does not appear to affect the total number of courses that they take and the type of curriculum that they follow. In 1992, Hispanic and white high school graduates had, on average, earned a similar number of total course units (24 each) and academic units (17 and 18, respectively) (*Indicator 23, Condition 1994*). Hispanic graduates were, however, less likely than their white counterparts to have taken the core curriculum (4 units of English and 3 units each of science, social science, and mathematics) recommended in *A Nation At Risk* (*Indicator 25*).[16]

Percentage of high school graduates earning the recommended credits in core courses in *A Nation At Risk*



SOURCE: *Indicator 26.*

In addition, Hispanic graduates were less likely than their white counterparts to take higher level mathematics, science, and foreign language courses. In 1992, Hispanic graduates were more likely than white graduates to have taken remedial mathematics and were less likely to have taken algebra II, geometry, or trigonometry than were white graduates (table 25-2). Although similar percentages of Hispanic and white graduates took biology, Hispanics were less likely to have taken chemistry, physics, or a combination of biology, chemistry, and physics (table 25-2). However, Hispanic college-bound graduates were just as likely as their white peers to have taken at least 2 years of a foreign language in high school (*Indicator 26, Condition 1994*).

Percentage of high school graduates taking selected mathematics and science courses

	1982		1992	
Mathematics and science courses	White	Hispanic	White	Hispanic
	Mathematics			
Remedial mathematics	27.0	48.5	14.6	24.2
Geometry	53.9	29.0	72.6	62.9
Algebra II	40.5	22.5	59.2	46.9
Trigonometry	13.8	6.8	22.5	15.2
Calculus	5.0	1.6	10.7	4.7
	Science			
Biology	80.1	73.2	93.5	91.2
Chemistry	34.7	16.7	58.0	42.6
Physics	15.3	5.5	25.9	15.7
Biology, chemistry, and physics	11.2	3.7	22.6	12.8

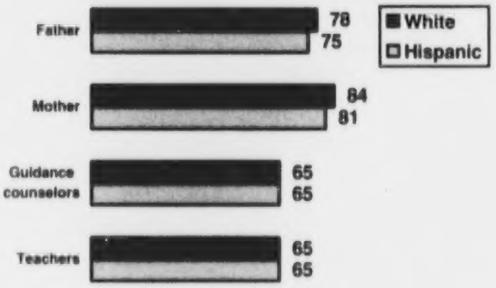
SOURCE: Table 26-2.

Do the educational aspirations of white and Hispanic students differ?

On average, Hispanic students have lower educational aspirations than white students. In 1990, 14 percent of Hispanic sophomores aspired to a high school diploma or less, compared to 9 percent of white sophomores. Forty-seven percent of Hispanic sophomores aspired to a bachelor's degree or higher, compared to 61 percent of whites.[17]

In 1990, Hispanic sophomores, however, were just as likely as whites to have teachers recommend college attendance, and to receive advice on college attendance from guidance counselors. Hispanic sophomores were also about as likely to have their parents advise them to attend college as their white counterparts (*Indicator 7, Condition 1994*).

Percentage of 1990 high school sophomores for whom college was recommended



SOURCE: NCES, National Education Longitudinal Study of 1988.

How different are college enrollment rates for Hispanic and white high school graduates?

Although Hispanic high school sophomores had lower educational aspirations than their white counterparts, college transition rates among Hispanic and white high school graduates did not differ measurably. The percentage of Hispanics enrolling in college in October following high school graduation was 58 percent in 1992, a difference that is statistically indistinguishable from the college transition rate for white high school graduates (*Indicator 9*). Hispanics, however, were more likely to attend 2-year public colleges in 1992, where they represented 10 percent of total enrollment, than 4-year colleges and universities, where they represented 5 percent of total enrollment (*Indicator 49*).

Do Hispanic and white students study different subjects in college?

Hispanic and white degree recipients concentrated in different fields of study at both the associate's and bachelor's degree levels. In 1991, at the associate's degree level, Hispanic men were slightly less likely than white men to major in other technical/professional fields, but were more likely to major in arts and sciences. On the other hand, Hispanic women were more likely than white women to earn associate's degrees in the arts and sciences and business, but were less likely to earn degrees in health-related fields. Differences in the fields studied by Hispanics and whites at the associate's degree level narrowed for men and widened for women (*Indicator 29, Condition 1994*).

At the bachelor's degree level, in 1991, Hispanics were more likely than whites to major in social and behavioral sciences and were less likely to major in technical/professional fields. Overall, Hispanic-white differences in the fields studied narrowed between 1977 and 1991, although almost all of the decrease occurred between 1977 and 1981 (*Indicator 30, Condition 1994*).

Percentage distribution of bachelor's degrees conferred

	1977		1991	
Field of study	Hispanic	White	Hispanic	White
Total degrees	100.0	100.0	100.0	100.0
Humanities and social/behavioral sciences	41.6	33.7	36.7	33.3
Humanities	19.0	16.2	17.4	16.3
Social/behavioral sciences	22.6	17.5	19.3	17.0
Natural sciences	8.2	10.0	6.2	6.2
Life sciences	5.3	5.9	4.1	3.4
Physical sciences	1.8	2.5	1.1	1.5
Mathematics	1.2	1.6	1.0	1.3
Computer sciences and engineering	5.3	5.8	9.7	8.6
Computer sciences	0.5	0.7	2.5	2.0
Engineering	4.8	5.1	7.2	6.6
Technical/professional	44.9	50.5	47.4	51.8
Education	16.3	15.5	9.6	11.1
Business and management	13.9	16.5	21.4	22.9
Health sciences	4.6	6.4	4.7	5.5
Other technical/professional	10.1	12.1	11.7	12.3

SOURCE: Table 30-2, *Condition 1994*.

Do Hispanics and whites have different postsecondary persistence rates?

The persistence rates of Hispanic and white postsecondary students vary greatly by degree objective. Among beginning students whose goal in 1989–90 was a vocational certificate, a lower percentage of Hispanic students had completed one by early 1992 than had white students (32 versus 53 percent). Among beginning students who sought an associate's degree, however, Hispanic students were far *more* likely to have been continuously enrolled or to have reenrolled after an interruption in 1992 than their white counterparts (72 versus 53 percent). The persistence rates of Hispanic and white students pursuing bachelor's degrees were similar over this period, although whites were more likely than Hispanics to have been continuously enrolled (*Indicator 10, Condition 1994*).

Among a recent cohort of full-time students pursuing associate's and bachelor's degrees, Hispanics and whites displayed similar persistence rates. Nevertheless, young adult Hispanics in general have much lower college attainment rates than do young adult whites. In 1994, 52 percent of Hispanic high school graduates 25 to 29 years old had completed at least some college, compared to 63 percent of their white counterparts. In addition, 13 percent of Hispanic high school graduates in this age group had earned a bachelor's degree or more, compared to 30 percent of whites. These gaps in educational attainment rates between Hispanics and whites have not closed between 1971 and 1994 (*Indicator 22*).

Hispanics who do complete college take longer, on average, than whites. Of 1990 college graduates, 60 percent of Hispanic students completed in 5 or fewer years, compared to 72 percent of white students. Taking longer to graduate may result from changing schools or majors, stopping out, or taking a reduced course load for financial, academic, or personal reasons. The additional time in college can be costly to the individual, as it delays entrance into the full-time labor market (*Indicator 6, Condition 1993*).

Are there gender differences in degree attainment for Hispanics?

Hispanic women earn substantially more bachelor's degrees than Hispanic men, although both groups have made substantial gains in degree attainment since the early 1980s. The number of degrees earned by Hispanic men increased by 50 percent between 1981 and 1991, while the number earned by Hispanic women increased by 86 percent (*Indicator 31, Condition 1994*).

Does the relationship between education and labor market outcomes differ for Hispanics and whites?

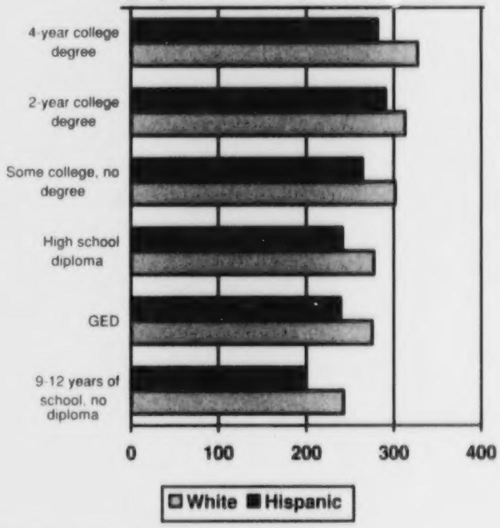
Among both Hispanics and whites, those with more education have better employment and earnings outcomes. In 1992, 54 percent of Hispanic recent high school graduates not enrolled in college were employed, compared to 29 percent of Hispanic recent dropouts. Yet white graduates not enrolled in college were still far more likely than Hispanic graduates to be employed (*Indicator 28*).

Earnings among 25- to 34-year-old Hispanics, particularly Hispanic females, show that the incentive to pursue additional education is sizable. For example, in 1993, Hispanic males with 9–11 years of schooling earned 27 percent less than male Hispanic high school graduates; those with a bachelor's degree earned 60 percent more. Hispanic females with 9–11 years of schooling earned 30 percent less than their counterparts with a high school diploma; those with a bachelor's degree earned 82 percent more. Between 1981 and 1993, the earnings advantage of completing college increased for Hispanic males and females, as well as for white males and females (tables 30-1–3). However, Hispanic-white differentials in earnings exist at each level of educational attainment. For example, white male college graduates 25 to 34 years old earned 23 percent more in 1993 than did Hispanic male college graduates of the same age (table 30-1).

How do the literacy levels of Hispanics and whites differ?

Large gaps between the literacy skills of Hispanics and whites exist both within and across levels of education. On the National Adult Literacy Survey, Hispanics scored at levels that were similar to whites with less education. For example, Hispanics with a 4-year college degree have literacy levels resembling those of whites with a high school diploma. The difference in prose literacy between Hispanic and white college graduates is 46 points, similar to the difference between the scores of white high school and college graduates (52 points). However, the gap in literacy between Hispanics and whites is less for 16- to 24-year-olds than for 25- to 64-year-olds (*Indicator 20, Condition 1994*). The differences in the labor market opportunities of Hispanics and whites noted above may be related to the differences in the literacy levels of both groups at similar levels of educational attainment.

Average prose literary scores: 1992



SOURCE: NCES, National Adult Literacy Study.

In summary, Hispanic children are less likely to be enrolled in preprimary education. Gaps in reading, mathematics, and science achievement appear at age 9, and do not narrow with age. Hispanic students are no less likely than white students to have their parents involved in their schooling, although Hispanic students are in some cases more likely to face a disorderly school environment than their white peers. Hispanic graduates are less likely to have taken advanced science and mathematics courses than their white counterparts in high school, but are just as likely to have taken foreign languages. Even though they have lower educational aspirations than whites, Hispanic students are about as likely as whites to make the immediate transition from high school to college. However, educational attainment levels are lower among Hispanic than white young adults. For Hispanics, educational attainment is positively associated with employment and earnings, although earnings and employment rates are lower for Hispanics than for whites with the same amount of education. Hispanics have lower literacy levels than whites, both in general and at similar levels of educational attainment.

Educational progress of women

Over the past two decades, women have made important advances in their educational attainment. The large gaps between the education levels of women and men that were evident in the early 1970s have essentially disappeared for the younger generation. Despite their gains in educational attainment, however, young women still earn less than young men with similar levels of education. In 1993, the average earnings of female high school graduates aged 25 to 34 years old were 37 percent lower than those of male graduates of the same age. Female college graduates earn, on average, 20 percent less than their male counterparts (tables 30-1, -2, -3). Furthermore, these large gender differences in earnings persist after taking educational attainment and prose, document, and quantitative literacy skills into account (*Indicator 31*).

Differences in progression rates, types of courses taken, level of effort, academic achievement, and field of study may all affect the labor market opportunities of women relative to men. Below, we summarize these educational differences, focusing on those that research has shown to be related to labor market outcomes.

Do females and males progress at similar rates through school?

Generally, females start school at an earlier age than males and are less likely to fall behind.[18] For example, 22 percent of 8-year-old females were below the modal (most common) grade for their age in October 1989, compared to 28 percent of their male peers. At age 13 the disparity was larger: 26 percent of females compared to 36 percent of males were below modal grade for their age (*Indicator 3, Condition 1992*).

Females are less likely to have repeated a grade than males. Nine percent of 16- to 24-year-old females had been retained in one or more grades, compared to 14 percent of their male counterparts in 1992 (table 4-1, *Condition 1994*).

Are females more or less likely than males to be placed in special education programs?

Females are far less likely than males to be enrolled in special education programs. In 1990, only one-third of special education students were female (table 42-4).

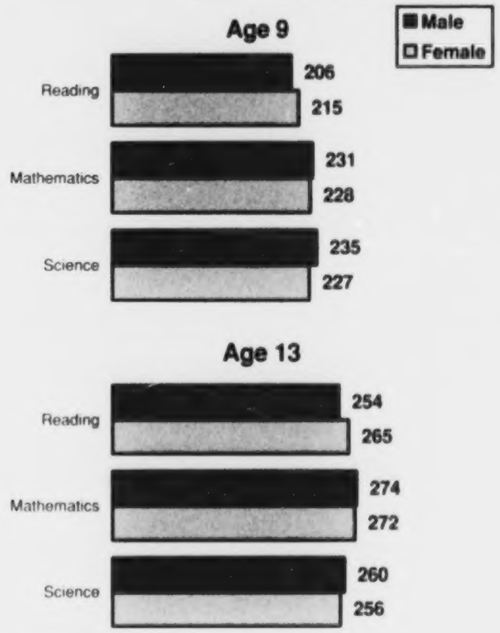
Do the achievement levels of females and males differ in the early grades?

At both ages 9 and 13, the achievement levels of females are higher in reading, similar in mathematics, and lower in science than those of males (*Indicators 13, 15,* and *16*).

Do the differences that we see in the achievement of females and males at age 13 persist into high school?

When retested near the end of high school, male and female 17-year-olds varied at least as much in their achievement as they did at younger ages. For example, in 1992, average reading proficiency for females was 12 scale points higher than for males. To understand the magnitude of this difference, it is helpful to look at the difference in proficiency scores across ages in 1992. A 12-scale point difference on the NAEP reading assessment corresponds to about 40 percent of the difference between the average scores of 13- and 17-year-olds in 1992. In other words, the gap in reading proficiency between males and females is roughly equivalent to about one and a half years of schooling (*Indicator 13*). This

NAEP scores in 1992

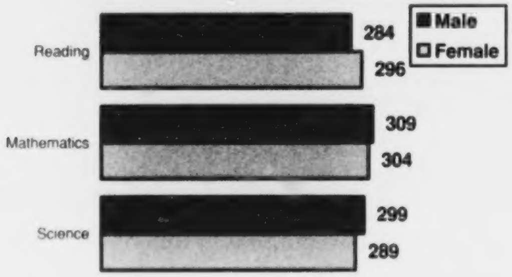


SOURCE: *Indicators 13, 15, and 16.*

performance difference favoring 17-year-old females in 1992 was as large as that in 1971 and as the proficiency gaps that existed at ages 9 and 13.

In mathematics and science, 17-year-old females score lower on average than males. In 1992, females scored 4 scale points lower than males on the NAEP mathematics assessment (roughly equivalent to about half a year of schooling), and 10 scale points lower on the science assessment (about a year's worth of science). Although both females and males have made gains in mathematics and science achievement since 1982, the gender gap for these subjects has not narrowed measurably.

NAEP scores of 17-year-olds in 1992



SOURCE: *Indicators 13, 15, and 16.*

Are females more or less likely than males to come to class unprepared?

Sophomore females were less likely than males to report coming to school without basic supplies in 1992. In particular, males were more likely than females to report that they usually or often come to school without books, paper and pencil, and completed homework (*Indicator 44, Condition 1994*).

Are the parents of females more or less likely than males to be involved in their child's education?

In 1988, eighth-grade females were more likely than males to report talking to their parents about selecting courses, about their school activities, and about their class studies. However, males and females were equally likely to have their parents review their homework, limit their television watching, and limit their going out with friends. However, females were less likely than males to have had their parents speak with their teacher or guidance counselor (*Indicator 43, Condition 1994*).

Do females and males take different courses in high school?

Among 1992 public high school graduates, females took more credits in academic subjects than males (18 versus 17 credits), whereas in the class of 1969, males and females took about the same number of credits (15 each) (*Indicator 23, Condition 1994*). Between 1982 and 1992, the percentage of both female and male graduates who took advanced mathematics and science courses in high school increased, although for many subjects gender parity had been attained by 1982. In the class of 1992, females were less likely than males to take remedial mathematics in high school, more likely to take algebra II, and just as likely to take calculus. With respect to science, females were more likely than males to take biology and just as likely to take chemistry. Females were less likely, however, to take physics (table 26-1).

In 1992, college-bound female high school graduates were more likely than male graduates to study a foreign language for at least 2 years in high school (78 versus 67 percent). In addition, females were more than twice as likely as males to take 4 years of a foreign language (19 versus 9 percent, *Indicator 26, Condition 1994*).

Percentage of high school graduates taking selected mathematics and science courses

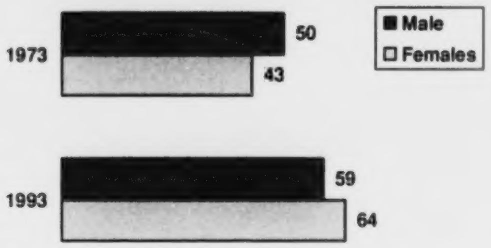
Mathematics and science courses	1982 Female	1982 Male	1992 Female	1992 Male
Mathematics				
Remedial mathematics	30	36	15	20
Geometry	49	48	72	69
Algebra II	36	38	58	54
Trigonometry	11	13	21	21
Calculus	4	5	10	10
Science				
Biology	81	77	94	92
Chemistry	31	32	57	54
Physics	9	18	21	28
Biology, chemistry, and physics	7	13	19	24

SOURCE: Table 26-1.

Do men and women differ with respect to attending college right after graduation?

Between 1976 and 1987, women and men were equally likely to enroll in college in the fall following high school graduation; but since the late 1980s, women have been slightly more likely than men to do so (*Indicator 9*). Furthermore, women are more likely than men to enroll in a 4-year college after graduation from high school. In 1993, the enrollment rate for women at 4-year institutions was 42 percent, compared to 36 percent for men. Women were just as likely as men, however, to enroll in 2-year institutions after high school graduation (table 9-1).

Percentage of high school graduates enrolling in college the October following graduation



SOURCE: *Indicator 9.*

In 1992, the majority of students enrolled in undergraduate and graduate programs were women, although more men were enrolled in first-professional programs, such as medicine, law, or dentistry.[19]

Have increasing college enrollment rates raised the aggregate educational attainment levels of women?

Over the past 20 years, college attainment rates among young women have increased dramatically, while rates for men remain basically unchanged. In the early 1970s, among high school graduates, about 40 percent of women aged 25–29 had completed 1 or more years of college, compared to 50 percent of similarly aged men. By 1994, a higher percentage of women than men in this age group had attended at least some college (62 versus 59 percent, table 22-2). A similar trend has occurred for female college graduates. In the early 1970s, among high school graduates, about 20 percent of women compared to 27 percent of men aged 25–29 had completed 4 or more years of college. By 1994, a similar percentage of men and women in this age group had earned a bachelor's degree or more (table 22-3).

How have women progressed with respect to the number of degrees earned?

Data on the number of degrees conferred demonstrate even more clearly the educational progress of women relative to men. In 1992, more associate's, bachelor's, and master's degrees were awarded to women than to men, whereas in 1977 the reverse was true. Though fewer doctoral and first-professional degrees were awarded to women than to white men in 1992, the gap has narrowed considerably.[20]

How do the college course-taking patterns of women and men differ at the undergraduate level?

Similarities in the mathematics and science course taking (except for physics) of women and men in high school disappear when examining college transcripts. Among 1985–86 bachelor's degree recipients, women were much less likely than men to have taken courses in the physical sciences, mathematics, computer science, and engineering, but were more likely to have taken courses in the life sciences (*Indicator 28, Condition 1994*).

In the social and behavioral sciences, women were more likely than men to have taken psychology and sociology, and were less likely to have taken political science and economics. Many of these differences, however, are linked to differences in choice of college major.

Women and men tend to study different fields in college, despite a narrowing of differences for undergraduates and in some fields for graduates. At the bachelor's level, women were about three times as likely as men to graduate with degrees in education in 1991–92, but this represented a decline from 1971. Women are also far more likely than men to major in English, foreign languages, communications, psychology, and the health professions and related fields. Although the differences between men and women with respect to field of study are decreasing in the biological/life sciences and business, women are still less likely than men to major in these fields. Moreover, women continue to be much less likely than men to major in mathematics, engineering, the physical sciences, and computer sciences.[21]

Ratio of the proportion of bachelor's degrees earned by women in a specific field relative to the proportion earned by men

Field of study	1972	1982	1992
Biological/life sciences	0.54	0.82	0.90
Business	0.14	0.64	0.76
Communications	0.71	1.28	1.32
Computer science	0.20	0.53	0.34
Education	3.71	3.10	3.18
Engineering	0.01	0.13	0.14
English	2.36	1.90	1.66
Modern foreign languages	3.99	3.16	2.24
Health sciences	3.99	5.23	4.28
Mathematics	0.82	0.74	0.74
Physical sciences	0.23	0.34	0.41
Psychology	1.11	1.99	2.31
Social sciences	0.73	0.80	0.71

SOURCE: NCES, IPEDS/HEGIS surveys of degrees conferred.

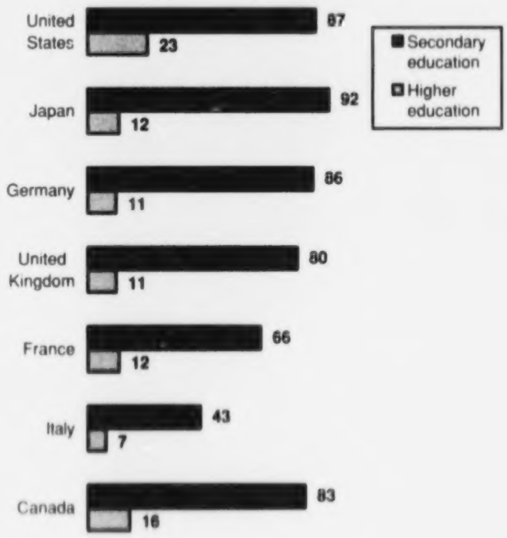
At the graduate level, the tendency of women and men to choose different fields of study has declined in many major fields. For example, differences in the proportions of women and men earning master's degrees in the life sciences, physical sciences, computer science, and engineering have narrowed over time. Differences in the proportions of men and women earning master's degrees in business management decreased between the early 1970s and the mid-1980s when the trend leveled off. Moreover, differences in the proportions of men and women earning master's degrees in the social sciences have disappeared. However, in some fields of study, large gaps do remain. For instance, at the master's degree level, women were almost three times as likely as men to earn graduate degrees in education and health professions, but only one-seventh as likely to earn degrees in engineering (*Indicator 27*).

How do the educational attainment levels of women in the United States compare to those of women in other countries?

Women in the United States generally have higher educational attainment than their counterparts in other countries. For example, in 1992 among U.S. women 25–64 years old, 84 percent had completed high school—far more than their counterparts in Japan, Germany, the United Kingdom, France, Canada, and Italy. Also, 21 percent had received a bachelor's degree or more, again far more than their counterparts in other countries (table 23-1).

In several countries, the educational attainment of younger generations of women has improved rapidly. This is evident in the fact that the attainment of women 25–34 years old was substantially higher than that for all women. As a result, the gap is closing between the educational attainment of women in these countries and the United States. For example, in Japan 92 percent of women 25–34 years old had

Educational attainment of 25- to 34-year-old females in 1992



SOURCE: *Indicator 23.*

finished secondary education, and in Germany 86 percent had done so, compared to 87 percent in the United States. Nevertheless, women 25–34 years old in the United States were still much more likely to complete higher education than their counterparts in Japan and Germany (*Indicator 23*).

In addition, in 1987, the percentage of women awarded university degrees in science and engineering fields was much higher in the United States than in other highly industrialized countries, including Japan or West Germany (*Indicator 2:8, Condition 1991*).

How have the labor market outcomes of women changed over time?

The employment rates of young women rose steadily throughout the 1970s and 1980s for those with a high school education or better (*Indicator 30, Condition 1992*). Furthermore, the gap between the employment rates for women and men narrow with increasing levels of educational attainment. For example, in 1994, the difference between the employment rates of 25- to 29-year-old males and females was 20 percentage points for high school graduates and 7 percentage points for college graduates (*Indicator 29*).

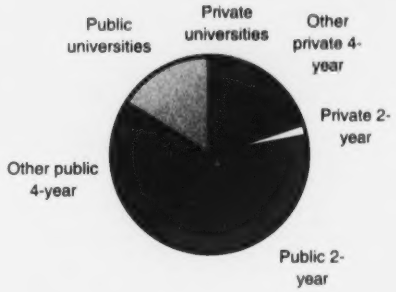
Female college graduates shared in the growth in earnings of all college graduates in the 1980s. Although, as noted above, female college graduates earn less on average than male college graduates, the earnings advantage that female college graduates enjoy over female high school graduates is greater than that enjoyed by males (*Indicator 30*).

In summary, women have made important advances in education over the last few decades, closing the gender gap in educational attainment among younger women that existed 20 years ago. In high school, females read and write better than males, although they perform worse in mathematics and science. The mathematics and sciences courses that females and males take in high school are similar, with the exception that females are less likely than males to study physics. Moreover, females are more likely than males to go to college immediately after high school and are just as likely to earn degrees. Although females tend to major in different subjects than males in college, many of these differences have narrowed over time. But despite large gains in educational attainment and labor force participation, significant differences in earnings persist between females and males, even at similar levels of education.

The cost of higher education

The answers to many important questions about higher education are determined in part by its cost. Is higher education a good investment for students? Is higher education affordable to students from middle income families? Is higher education accessible to students from low income families? Is higher education a good value? How are the costs of higher education shared between students, their families, and government?

Distribution of enrollment in higher education, by type and control of institution: 1993



SOURCE: Integrated Postsecondary Education Data System, Fall Enrollment, 1993.

These questions are interrelated with some highly publicized issues. For instance, reports of tuition charges of $20,000 or more have raised fears that college has become unaffordable. Some believe that federal financial aid policy should help more people finance their education. Others argue that too much federal financial aid is provided in the form of loans as opposed to grants. Further, public postsecondary institutions have had to cope with smaller appropriations as governments face increased pressure on their budgets and are relying more on tuition as a source of revenue. Finally, average faculty salaries have recently been rising faster than inflation, but only after much of their purchasing power was eroded during the high inflation years of the 1970s.

private institutions. Also, only one in four of the students attending private institutions were attending universities where tuition charges are higher than those at other private 4-year institutions.[22]

Average annual rate of increase in tuition and fees (above the rate of inflation)

	1980–90	1990–94	1980–94
Public		(percent)	
Universities	4.0	4.8	4.2
Other 4-year	4.0	6.3	4.7
2-year	2.7	6.3	3.7
Private			
Universities	5.2	3.8	4.8
Other 4-year	4.6	3.2	4.2
2-year	4.4	1.5	3.6

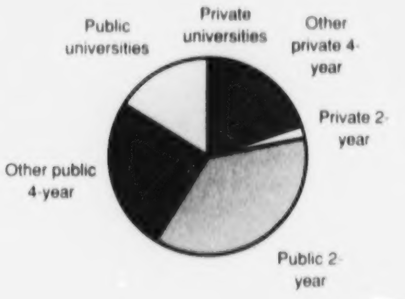
SOURCE: Table 7-2.

Between 1980 and 1990, tuition charges increased at all types of higher education institutions, and since 1990 the rate of increase at public institutions has been greater than that at other institutions or than previously. For example, at public universities, tuition and fees grew at a rate of 4.0 percent per year (above the rate of inflation) between 1980 and 1990, but at a rate of 4.8 percent per year between 1990 and 1994. On the other hand, median family income did not keep pace with inflation. It fell in constant dollars from $42,500 in 1980 to $40,500 in 1993 (*Indicator 7*).

What have been the effects of rising costs on students?

Despite rising tuition charges, college-going rates have continued to rise, and there is no evidence that students are switching to lower cost 2-year colleges. In 1980, 30 percent of that year's high school graduates were enrolled in 4-year colleges in October compared to 38–40 percent in the early 1990s. Between 1980 and 1993, the percentage who enrolled in 2-year colleges did not change appreciably: it rose only from 19 percent in 1980 to 20 percent in 1990 and to 22 percent in 1993. Even among low income families who may be more affected by rising college tuition, college-going rates increased significantly from 33 percent in 1980 (at both 4-year and 2-year colleges) to 47 percent in 1990 and 50 percent in 1993 (*Indicator 9*).

Distribution of enrollment in higher education, by type and control of institution: 1993



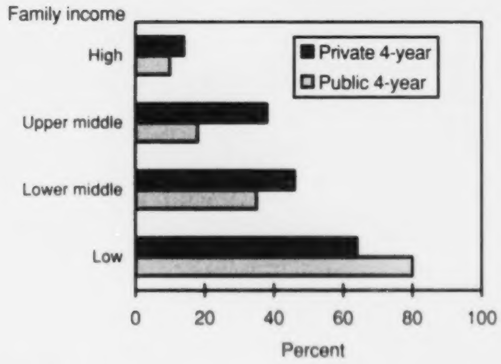
SOURCE: Integrated Postsecondary Education Data System, Fall Enrollment, 1993.

Perhaps a reason for the continuing increase in college enrollment rates in the face of rising tuition is the relative advantage that college graduates have over high school graduates in the labor market. For example, in 1994 among 25- to 29-year-old males, college graduates were much less likely to be unemployed than high school graduates (3 versus 9 percent); and their female counterparts followed a similar pattern (table 29-1). Among 25- to 34-year-old workers, males who had graduated from college earned 57 percent more and females 99 percent more than their counterparts who had graduated from high school (*Indicator 30*).

Furthermore, while tuition charges were rising between 1980 and 1993, the earnings premium for graduating college was also rising, and may have outweighed any negative effect of rising tuition on enrollment rates. For male workers, the premium increased from 19 to 57 percent; for female workers, it increased from 52 to 99 percent. However, these increases were largely due to a decrease in the average earnings of high school graduates, rather than an increase in the average earnings of college graduates. For example, for males the average earnings of college graduates were about $33,000 in both 1980 and 1993; however, the average earnings of male high school graduates fell from about $28,000 to $21,000 over the same period (tables 30-1 and 30-3). Thus, young people today may need to acquire postsecondary education as protection from a deteriorating labor market for workers who have only a high school education.

Student financial aid, particularly from federal sources, is designed to defray some of the cost to students of attending college, particularly for those from low income families. During the 1992–93 academic year, the average amount of grant aid allocated to dependent full-time students attending public 4-year colleges was 29 percent of the average tuition charged them (*Indicator 8*). In effect, students received, on average, a 29 percent discount on tuition charges. Because the amount of grant aid is larger for students from low income families, this percentage was higher for students from such families (80 percent) than for students from high income families (10 percent). For those attending private 4-year colleges and universities, the patterns were similar; however, for students from low income families attending private 4-year institutions, the average amount of grant aid received was a smaller percentage of their average tuition charges than for their counterparts attending public 4-year institutions (64 versus 80 percent).

Average grant aid as a percentage of average tuition charged for dependent full-time undergraduates: 1992–93



SOURCE: National Postsecondary Student Aid Study: 1992–93.

Private higher education institutions have substantially increased the amounts they are spending on scholarships and fellowships. This may allow these institutions to help those students who are most likely to need a reduction in tuition if they are to attend. At private universities, expenditures per full-time-equivalent (FTE) student for scholarships and fellowships increased from $1,800 in 1980 to $3,000 in 1990 and to $3,600 in 1992 (in constant 1994 dollars). At other private 4-year colleges, the amounts were smaller, but the gains equally important—from $1,100 in 1980 to $2,000 and $2,400 in 1990 and 1992, respectively. The increases at public institutions were not as great. At public universities, scholarship and fellowship support rose from $500 to $900 between 1980 and 1992, and at other public 4-year colleges from $400 to $500 (table 55-1).

Have costs to higher education institutions risen as quickly as costs to students, i.e., tuition?

In general, expenditures per FTE student increased only moderately over the same period. At public universities, they increased about 16 percent in constant dollars from about $15,000 to about $17,000 between 1980 and 1992; at public 2-year colleges, they rose and fell during the 1980s, but were at a similar level in 1992 to that in 1980—$5,700 (*Indicator 55*). They rose the most (about 43 percent) at private universities where total (education and general) expenditures per FTE student rose from about $23,000 to $32,000.

Expenditures in higher education, by type and control of institution: 1992

Type and control of institution	Total (1994 dollars)	Percent change since 1980	Share for instruction (percent)	Change in share since per instructor 1980
Public universities	$17,246	16	36	-3
Private universities	32,242	43	38	0
Other public 4-year	11,654	6	43	-2
Other private 4-year	15,029	34	33	-4
Public 2-year	5,686	-1	50	0

SOURCE: Tables 55-1 and 55-2.

Instruction is the largest category of expenditure for higher education institutions, but only at 2-year colleges does it reach half of all expenditures. At 4-year institutions, the share of expenditure for instruction varied from 33 percent at private colleges to 43 percent at public colleges in 1992. Other large categories include administration, research, and operation/maintenance of plant (table 55-1). Expenditures for instruction per FTE student rose more slowly than total (education and general) expenditures at most types of institutions. For example, instruction's share of the total fell by 2 percentage points at public colleges and by 4 percentage points at private colleges. The exception was private universities where instruction was a similar share of total expenditures in both 1980 and 1992 (table 55-2).

What factors are behind the rising expenditures per student in many sectors of higher education?

One possibility would be that enrollment fell as the large baby boom cohorts finished college, while employment of faculty and other staff remained stable. This pattern is not apparent in most sectors of higher education. The size of high school graduating classes did fall from 3.2 million in 1977 to 2.5 million in the early 1990s. However, while the graduating classes were getting smaller, enrollments at higher education institutions only leveled off during the first half of the 1980s and then continued increasing (table 36-1). Universities were the exception where enrollment grew very little between 1980 and 1992.[23] Finally, the number of staff employed in higher education increased over this period. The result of the two trends was that the number of FTE staff per 100 FTE students increased from 18.1 to 20.3 between 1983 and 1987 and was stable before (1977 to 1983) and after (1987 to 1989).[24]

Before considering another possibility, consider the distribution of types of staff employed in higher education and the effect they may have on the quality of education. In 1991, there were approximately six FTE faculty, both instructional and research, six other professional staff, and eight other non-professional staff for every 100 FTE students in higher education.[25] In public elementary and secondary schools, there were six classroom teachers and another five staff for every 100 students.[26] Despite the similar number of faculty per 100 FTE students in higher education and elementary/secondary schools, many of the classes at colleges and universities are quite large. For example, 33 percent of the classes at research universities have 50 or more students. At liberal arts institutions, however, only 5 percent of such classes are this large (table 50-1). Between 1988 and 1993, there was little change in the percentage of classes with more than 50 students.

Another possible factor that may be contributing to rising expenditures in some sectors of higher education could be rising prices of resources utilized by institutions of higher education. If resource prices rose faster than inflation and institutions did not change the quantity of resources employed per FTE staff, then expenditures per FTE student would rise. For example, if average faculty salaries rose faster than inflation but institutions maintained a stable number of faculty per 100 students, then expenditures per FTE student would rise—barring a reduction in the price or utilization of some other resource such as equipment, buildings, or staff benefits. It is worthwhile to focus some attention on faculty salaries, because it is likely that most expenditures at higher education institutions are for staff, as opposed to building and equipment, and one in three staff are faculty.[27]

Although average faculty salaries fell in constant dollar terms during the high inflation period of the 1970s, the trend reversed and average faculty salaries rose significantly during the 1980s. For example, the average salary of full professors at public institutions fell from $64,000 in 1972 to $49,000 in 1981 (in constant 1993 dollars). It then rose during the 1980s and was $58,000 in 1992.[28] At private institutions the patterns were similar. However, as was noted above, expenditures for instruction, which include expenditures for all faculty time except the part paid for by research grants and contracts, rose more slowly than total expenditures. This suggests that increased utilization or prices of other resources, including non-faculty staff, had a larger effect on expenditures than increased faculty salaries.

Finally, a possible reason for the rise in the cost of higher education over the long term is a lack of increase in productivity in higher education. Whereas, many sectors of the U.S. economy, particularly manufacturing and agriculture, have used technology and innovation to either increase the quantity or quality of goods provided with no corresponding increases in resources used, higher education is still provided in largely the same way it was when the nation was born. When productivity growth in a particular sector of the economy lags that in the rest of the economy, the cost of providing that good or service will increase.[29]

Has tuition as a source of revenue increased in importance?

In general, the trends in revenue per FTE student followed patterns similar to those for expenditures in each sector of higher education.

With the exception of public 2-year colleges, revenue per FTE student (in constant dollars) increased at all types of higher education institutions between 1980 and 1992. At private institutions, the increase was particularly dramatic. At private universities, revenue per FTE student increased from $22,900 to $30,500, and at private 4-year colleges, it increased from $11,000 to $14,200 over this period. However, while revenue per FTE student increased, government appropriations fell (in constant dollars and as a percentage of total revenue) at all types of institutions. For public institutions, which rely heavily on government appropriations, the fall was particularly large between 1990 and 1992; even with significant increases in tuition revenue per FTE student, total revenue fell or remained steady over this period (*Indicator 56*).

The result of increasing tuition charges and declining government appropriations is that between 1980 and 1992 the share of revenue from tuition and fees increased at all types of institutions. Although public institutions rely less on tuition than do private institutions, the share of their revenue from tuition and fees increased 6 to 7 percentage points for all types of public institutions. On the other hand, these institutions rely much more heavily on government appropriations, and the share of their revenue from these sources fell 8 to 12 percentage points in all sectors. At private institutions, which rely heavily on tuition revenue, the share of revenue from this source increased 5 to 8 percentage points (table 56-2).

Is higher education still a good value?

Despite the large increase in average tuition charges, these charges remain well below total education and general expenditures per FTE student. At public institutions, average tuition charges are lower than expenditures for instruction per FTE student, i.e., excluding expenditures for administration, operation/maintenance of plant, libraries, and student services. At private universities, average tuition charges are similar to instructional expenditures per FTE student ($13,800 versus $12,300); however, at other private 4-year institutions, average tuition charges are higher than instructional expenditures per FTE student ($10,200 versus $5,000), but less than total expenditures per FTE student ($11,700). In most sectors of higher education, students are charged less on average than institutions spend for instruction, and some research suggests that students prefer to attend high spending institutions, particularly those where the difference between expenditures and tuition is the greatest.[30]

The cost of college to students includes more than the expenditures for tuition; it also includes foregone earnings. It is difficult for a person with a good job or the prospect of getting one to give up that income source to enroll in higher education. The earnings and experience given up to continue education are significant, possibly greater than the tuition that must be paid.[31] Even if the earnings of high school graduates between the ages of 18 and 23 are relatively low, they are nevertheless high when compared to average tuition charges, particularly those at public institutions. Thus, falling labor market opportunities for high school graduates may have reduced the cost of enrolling in higher education as much as rising tuition has increased it.

On the benefit side, large economic benefits appear to accrue to those who participate in higher education. Unemployment rates are lower, earnings are higher, working conditions are better, and fringe benefits are more generous for college graduates than for high school graduates. In addition, at least one of these benefits, the earnings benefit, not only has been increasing in recent years but also appears to grow larger with age.

In short, higher education still appears to be a good investment for students.

Conclusion

The Condition of Education presents data and analyses on a wide variety of issues in education. The preceding discussion has highlighted only a few of the issues presented in the 60 indicators in this volume. The reader is encouraged to read the overviews to each section for discussion of other issues, to peruse the indicators of interest, and to use the tables for additional details.

NOTES:

[1] Steven W. Barnett. "Benefits of Compensatory Preschool Education." *Journal of Human Resources* 27 (1992): 279–312.

[2] A. Stewart. *Head Start: A Fact Sheet*. Washington, D.C.: Congressional Research Service, 1993.

[3] S. Bredekamp, ed. *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8*. Washington, DC: National Association for the Education of Young Children, 1987; and D. Phillips, ed. *Quality in Child Care: What Does Research Tell Us?* Washington, D.C.: National Association for the Education of Young Children, 1987.

[4] Black students were more likely than white students in 1991 to have been enrolled in a day care center and not to have been attending nursery school, 21 versus 13 percent.

[5] Organization for Economic Co-operation and Development, Center for Educational Research and Innovation. *Education at a Glance*. Paris: 1995, table PO2(B).

[6] U.S. Department of Education, National Center for Education Statistics. *Public School Kindergarten Teacher's Views on Children's Readiness for School* (NCES 93-410). Washington, D.C.: 1993.

[7] Samuel S. Peng, Deeann Wright, and Susan T. Hill. *Understanding Racial-Ethnic Differences in Secondary School Science and Mathematics Achievement* (NCES 95-710). U.S. Department of Education, National Center for Education Statistics. Washington, D.C.: February 1995.

[8] U.S. Department of Education, National Center for Education Statistics, Common Core of Data, 1992; and U.S. Department of Education, Office of Civil Rights, Elementary and Secondary School Civil Rights Survey, 1968.

[9] U.S. Department of Education, National Center for Education Statistics. *Dropout Rates in the United States: 1993*. Washington, D.C.: 1994, table 20.

[10] Ibid., table 19.

[11] *Dropout Rates in the United States: 1993*, figure 4.

[12] Hispanics in the 8th-grade class of 1988 were almost twice as likely as their white counterparts to drop out between 8th and 10th grade: 9.6 and 5.2 percent, respectively. See *Dropout Rates in the United States: 1993*, table 18.

[13] Mary Frase. *Are Hispanic Dropout Rates Related to Migration?* U.S. Department of Education, National Center for Education Statistics. Washington, D.C.: 1994, table 1.

[14] Ibid.

[15] U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 1994*. Washington, D.C.: 1994, table 141.

[16] The panel's recommendation of 0.5 units in computer science is not included in this description; however, it is included in supplemental tables 25-1 and 25-2.

[17] U.S. Department of Education, National Center for Education Statistics. *America's High School Sophomores: A Ten-Year Comparison*. Washington, D.C.: 1994, table 6.1.

[18] In 1991, a higher percentage of boys than girls in first grade were age 7 or older (24 versus 18 percent). See *Indicator 3* in *The Condition of Education 1993*.

[19] *Digest of Education Statistics, 1994*, table 174.

[20] *Digest of Education Statistics, 1994*, table 234. For first-professional degrees by type of program, see tables 249, 263, and 264.

[21] *Digest of Education Statistics, 1994*, tables 268–285.

[22] *Digest of Education Statistics, 1994*, table 170.

[23] *Digest of Education Statistics, 1994*, table 170.

[24] *The Condition of Education 1992*, tables 54-2 and 54-3, and *Fall Staff in Postsecondary Institutions, 1991*.

[25] *Digest of Education Statistics, 1994*, tables 216 and 196.

[26] *Digest of Education Statistics, 1994*, table 82, or *The Condition of Education 1992, Indicator 53*.

[27] *Digest of Education Statistics, 1994*, table 216.

[28] *The Condition of Education 1994*, table 57-1.

[29] This phenomenon is widely known in the economics profession as "Baumol's disease." See Baumol, William J. "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," *American Economic Review*, 57 (June 1967) and Baumol, W. J. and W. G. Bowen, *Performing Arts: The Economic Dilemma*, 1967. The "disease" is the inevitable rise as the economy grows and incomes rise in the cost of some goods or services which meet three criteria: 1) slower productivity growth than in the rest of the economy, 2) increasing (relative) demand as incomes grow, and 3) lack of good alternatives to the good or service. (Higher education may be in this category, but there are plausible arguments for why it may not be, also.) If these three criteria hold for higher education, then over time its cost is likely to increase without a commensurate increase in quality or quantity.

[30] Ralph M. Bradburn, Duncan P. Mann, Michael S. McPherson, and Morton Owen Shapiro. "Understanding the 'Quality' Issue in U.S. Higher Education." Washington, D.C.: Pelavin Associates, Inc. (prepared for Office of Planning, Budget, and Evaluation, U.S. Department of Education), October 1991.

[31] Most analysis of the rate of return to education by economists builds on this fact. See, for example, Jacob Mincer. *Schooling, Experience, and Earnings*. National Bureau for Economic Research, 1974.

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Access, Participation, and Progress

Participation

School enrollment rates among children 6 to 14 years old are essentially 100 percent, while enrollment rates among children 3 to 5 years old and young people 16 to 23 years old have increased substantially since 1970. In 1993, the percentage of 3- and 4-year-olds enrolled in school was 27 and 54 percent, respectively, up from 13 and 29 percent in 1970. The percentage of 5-year-olds enrolled was 92 percent, up from 81 percent in 1970 (*Indicator 1*). Virtually all children now attend kindergarten before starting first grade.

When one includes all center-based programs such as Head Start, nursery school, and day care, participation rates in early childhood programs are higher. Seventy-two percent of children who were in first grade in 1993 had attended some form of center-based program before kindergarten. While blacks and whites had similar participation rates (73 and 76 percent, respectively), Hispanics had much lower rates of participation (57 percent). Of those attending center-based programs, students from families with incomes over $50,000 were more likely than students whose family income was $50,000 or under to attend these programs for 2 years or more (*Indicator 3*).

Enrollment rates (in schools and colleges) among 16- to 24-year-olds have also increased over the past two decades. For example, the enrollment rate of 22-year-olds was 31 percent in 1993, up from 20 percent in 1970 (*Indicator 1*). These increases may indicate that a higher proportion of high school graduates are going on to college before the age of 25, or that students are remaining in college for a longer period of time. While the *number* of 25- to 34-year-old students in colleges and universities increased between 1970 and 1993,* enrollment *rates* in general did not increase among this age group (table 1-1). The rise in the number of older students enrolled (those, aged 25 to 34) is due to an increasing number of older people in the population (the aging of those born during the post-World War II baby boom), not to an increasing *percentage* of the older population enrolling in college.

Participation in education among older adults is extensive. Among 25- to 34-year-olds in October 1993, the enrollment rate in 2- and 4-year colleges and universities varied from 15 percent for 25-year-olds to 5 percent for 34-year-olds (*Indicator 1*). Furthermore, one out of three full-time workers and one out of six part-time workers participated in training to improve their current job skills in 1991 (*Indicator 12*).

The enrollment trends outlined above varied across racial/ethnic groups. While preschool enrollment rates among 3- and 4-year-olds increased between 1971 and 1993 for all racial/ethnic groups, the increase was larger for whites than for blacks and Hispanics. Throughout the 1980s, the percentage of white 3- and 4-year-olds enrolled in preschool increased, while the rates for blacks and Hispanics were generally stable (table 2-1). On the other hand, more black and Hispanic 3- and 4-year-olds were enrolled in kindergarten than whites of the same age. And, among 5-year-olds, there is no difference in the percentage of whites and blacks enrolled in kindergarten (table 2-2).

Access

Access to preschool may be affected by family income because nursery schools are primarily private—accounting for 62 percent of preschool enrollment in 1992 (*Indicator 37, Condition of Education 1994*)—and charge tuition. In 1993, 52 percent of 3- and 4-year-olds from high income families were enrolled in preschool compared to 24 percent of those from low income families (*Indicator 2*). This difference was larger than it was in the early 1970s. However, in 1993, over 60 percent of first graders whose family income was under $20,000 had attended some form of center-based program before kindergarten (*Indicator 3*).

Increased access to early childhood programs should contribute to children being better prepared when entering kindergarten. Of the population of 4-year-olds not yet enrolled in kindergarten in 1993, parents reported that a majority were able to identify all colors, recognize most letters, count to at least 20, write their first name, and hold a pencil properly. Moreover, less than one-third of the parents reported that their 4-year-old had temper tantrums often, a short attention span, or fidgeted a lot. Four-year-olds from high income families, who were more likely to attend an early childhood program, displayed more skills than students from low income families. According to reports from parents in 1993, 4-year-old children from high income families ($50,000 or more) were more likely than those from low income families (less than $20,000) to be able to recognize all letters and to count to 50. In addition, children from low income families were more likely to fidget and to have short attention spans than children from high income families (*Indicator 4*).

As society enters the information age, computer literacy has become more and more important. In 1993, almost 70 percent of students in grades 1 through 12 used a computer either at home or in school. The percentage of students who use computers has doubled since 1984, at which time it was 35 percent. Although as a whole a greater proportion of students use computers today, some groups of students do so less than others. In 1993, about one-half of students from high income families used a computer at home, compared to about 5 percent of students from low income families (*Indicator 5*). In addition, white students were more likely than black or Hispanic students to use a computer both at home and at school.

Access to postsecondary education is influenced by the cost of college to students and their families. Since 1980, the cost of college attendance has increased much faster than family income. Tuition and room and board at public and private institutions increased 42 and 68 percent, respectively, between 1980 and 1992. During this same period, median family income decreased by 5 percent (*Indicator 7*). Student financial aid helps reduce the cost of attending college. Among dependent, full-time undergraduates attending public 4-year institutions, the average grant aid received was 29 percent of the average tuition and fees charged during the 1992–93 academic year. This ratio varied from 80 percent for students from low income families to 10 percent for those from high income families (*Indicator 8*).

Despite the increasing cost of college attendance, the percentage of high school graduates who enrolled in college following graduation increased from 49 percent in 1980 to 62 percent in 1993 (*Indicator 9*). However, high school graduates from low income families were less likely than graduates from high income families to enroll in college (50 versus 79 percent in 1993).

Persistence

Overall, the persistence rate in high school was 96 percent in 1993; that is, 96 percent of students in grades 10 to 12 in the fall of 1992 were enrolled again in the fall of 1993 (or had graduated during the year). The other 4 percent dropped out of school during the year or failed to return in the fall. Persistence in high school is strongly associated with family income. For students from high income families, the persistence rate was 99 percent, while the rate for students from low income families was 88 percent. A hopeful sign is that the persistence rate has gradually increased over the past two decades for students from low income families—from below 83 percent in 1973 to 91 percent in 1990, although there has been a slight drop since then, down to 88 percent in 1993. Persistence rates have improved across all racial/ethnic groups between 1972 and 1993. The persistence rates for white, black, and Hispanic students increased by 1.4, 3.7, and 4.5 percentage points, respectively (*Indicator 6*).

Although, as noted previously, more students are going on to college after high school, the data show that it is very common for college students to enroll, leave, possibly return, and not finish within the expected period of time. (Indicator 10, *Condition of Education 1994*). For example, in 1990 only one-quarter of first-year community college students were enrolled in some form of higher education the next year. And, about one-fifth of second-year community college students transferred to 4-year colleges or universities (*Indicator 10*).

For the students who reach graduate school, earning a doctorate is taking longer. The number of years in graduate school that it took students to complete their doctoral degrees increased by 1.7 years, on average, between 1970 and 1993. Among new doctorate recipients in 1993, registered time-to-degree was about 8 years for students majoring in education, the humanities, the social and behavioral sciences, and other technical/professional areas. Students who earned a Ph.D. in the natural or computer sciences or in engineering took about 6 years to finish their doctorate (table 11-1).

NOTE:

*U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 171.

School enrollment rates, by age

- **Since 1970, practically all children between the ages of 6 and 15 have been enrolled in school.**
- **Enrollment rates for 3- to 5-year-olds were substantially higher in 1993 than in 1970. However, most of the increase had occurred by 1980.**
- **Enrollment rates among 16- to 25-year-olds were higher in 1993 than in 1970. For 17- to 20-year-olds, rates decreased between 1970 and 1974 before beginning to increase. For 21- and 22-year-olds, most of the increase occurred after 1982, and for 23- and 24-year-olds most of the increase occurred after 1984. Enrollment rates among those over age 25 generally did not increase over the period (see supplemental table 1-1).**

Learning occurs throughout a person's life, even though participation in formal education is generally only mandatory for those between 6 and 16. Enrollment rates of younger and older persons are an indication of the importance of formal education in the United States.

Percentage of the population enrolled in school, by age: Selected Octobers 1970–93

	Age															
October	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1970	13.2	28.7	80.6	98.9	99.7	99.8	99.9	100.0	99.9	99.9	99.7	99.0	98.1	94.1	87.2	57.8
1980	27.6	47.2	93.2	99.4	99.5	99.5	99.7	99.6	99.7	99.8	99.7	98.7	98.5	93.9	85.2	54.6
1992	27.7	52.1	92.4	98.6	99.3	99.3	99.5	99.3	99.3	99.5	99.4	99.4	98.9	96.3	91.9	68.1
1993	27.1	53.9	91.8	99.0	99.4	99.5	99.5	99.4	99.7	99.8	99.4	99.4	98.3	96.3	91.6	68.9

	Age															
October	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
1970	45.8	39.1	30.7	20.2	16.3	14.7	12.6	10.8	9.6	7.7	7.6	6.4	7.0	5.4	5.2	5.4
1980	43.0	33.9	30.6	22.3	16.7	13.5	12.0	11.2	10.0	8.8	7.9	8.0	8.2	6.5	6.8	6.3
1992	54.6	46.6	41.5	29.0	21.9	17.6	13.3	10.2	10.6	7.9	7.4	7.0	7.4	5.6	4.7	5.7
1993	54.4	45.1	40.6	30.7	22.0	18.5	15.1	10.8	8.6	8.9	8.1	7.1	6.4	5.2	5.4	5.4

Percentage of the population enrolled in school for selected ages: Selected Octobers 1970–93

	Age											
October	3	4	5	16	17	18	19	20	21	22	23	24
1970	13.2	28.7	80.6	94.1	87.2	57.8	45.8	39.1	30.7	20.2	16.3	14.7
1972	15.8	34.0	85.7	93.8	85.6	57.5	42.7	37.8	31.2	20.5	16.9	15.2
1974	20.0	38.3	89.9	93.7	82.9	53.2	39.4	33.4	31.6	20.1	15.9	13.8
1976	20.8	42.7	92.3	93.3	86.2	53.0	44.8	37.1	30.9	22.3	16.7	16.1
1980	27.6	47.2	93.2	93.9	85.2	54.6	43.0	33.9	30.6	22.3	16.7	13.5
1984	28.5	46.5	91.4	95.3	88.5	58.6	43.1	37.7	31.4	22.5	17.2	13.8
1988	27.6	49.2	92.6	94.6	88.8	62.8	47.8	42.1	36.0	25.4	17.1	13.2
1990	(*)	(*)	93.2	95.6	89.5	64.4	50.6	42.9	36.4	28.1	19.2	16.2
1991	28.2	53.0	91.4	96.5	90.0	65.5	54.0	43.6	40.5	28.2	20.9	17.0
1992	27.7	52.1	92.4	96.3	91.9	68.1	54.6	46.6	41.5	29.0	21.9	17.6
1993	27.1	53.9	91.8	96.3	91.6	68.9	54.4	45.1	40.6	30.7	22.0	18.5

* Comparable data not available due to a change in survey procedures.

NOTE: School includes kindergartens and nursery schools but excludes day care centers, and includes 2- and 4-year colleges and universities but excludes schools with programs of strictly less than 2 years.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

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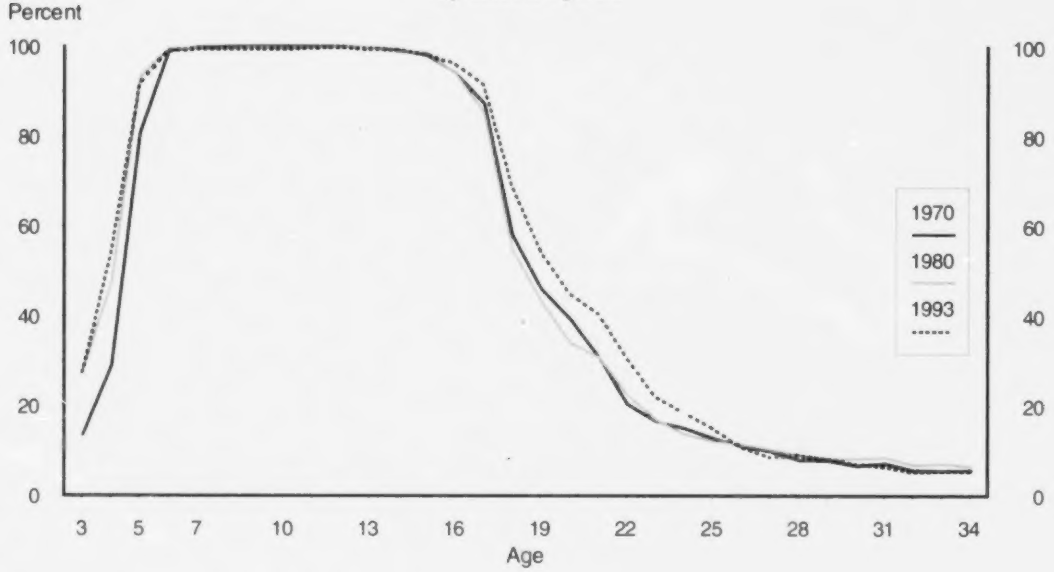
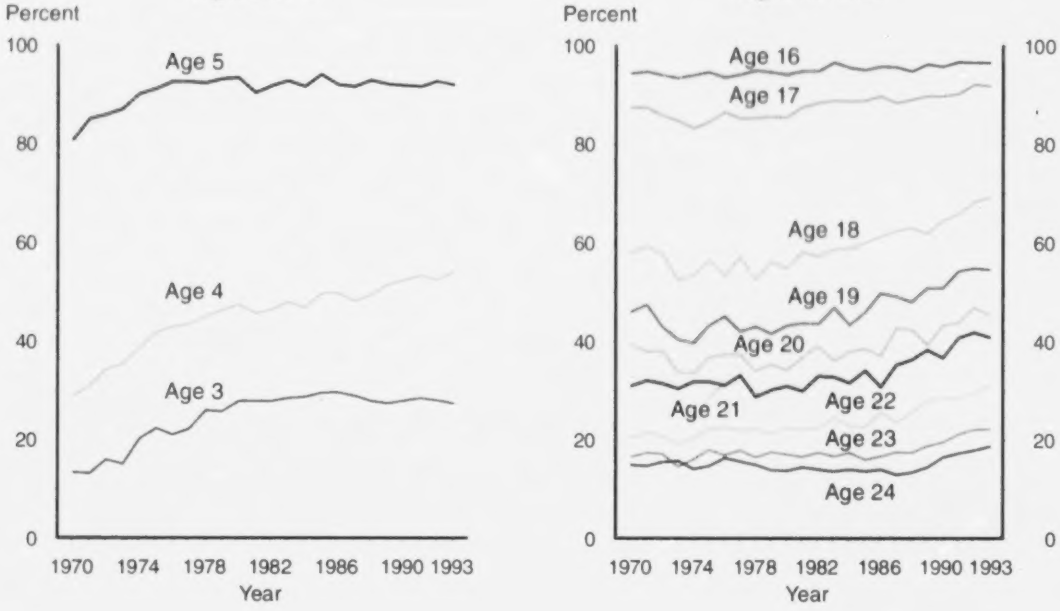
Percentage of the population enrolled in school, by age: Selected Octobers 1970–93

By selected years




Ages 3 to 5

Ages 16 to 24

NOTE: For 1990, comparable data were not available for children ages 3 and 4 due to a change in survey procedures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Enrollment rates in preprimary education

- **In 1993, 34 percent of all 3- to 4-year-olds were enrolled in preschool.**
- **In 1973, the enrollment rate in preschool for 3- to 4-year-olds from low income families was about 20 percentage points lower than the rate for those from high income families. By 1993, enrollment rates for 3- to 4-year-olds from both income groups had increased, and the gap had widened to 28 points.**
- **During the 1970s, white and black preschool enrollment rates were similar. However, due to increases in white enrollment between 1978 and the late 1980s, white enrollment rates were 8 percentage points higher than those of blacks and 21 percentage points higher than those of Hispanics in 1993 (see supplemental table 2-1).**
- **At ages 3–4, whites were more likely than blacks to be enrolled in preschool, while blacks were more likely than whites to be enrolled in kindergarten. As a result, in 1993, a similar percentage of blacks and whites (40 and 43 percent, respectively) were enrolled in some type of school program at ages 3–4 (see supplemental table 2-1).**

Within most population groups, an increasing percentage of children receive preschool instruction. This instruction contributes to the preparation of children to participate in elementary school. Many policymakers and educators believe that it is important to help children from disadvantaged backgrounds start elementary school on an equal footing with other children by involving them and their parents in preschool programs.

Percentage of 3- to 4-year-olds enrolled in preschool and kindergarten, by family income: October 1970–93

October	Enrolled in preschool: Total	Preschool family income: Low	Preschool family income: Middle	Preschool family income: High	Enrolled in kindergarten: Total	Kindergarten family income: Low	Kindergarten family income: Middle	Kindergarten family income: High
1970	14.1	9.1	11.5	26.5	6.4	5.6	6.7	6.0
1971	14.2	10.6	11.6	26.7	6.9	7.4	6.4	8.6
1972	17.9	15.6	14.4	32.7	6.5	5.4	6.4	7.6
1973	17.7	15.0	13.7	34.7	6.4	8.4	5.9	7.2
1974	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1975	24.4	20.2	21.4	37.7	7.1	6.5	6.8	8.4
1976	22.9	15.1	19.5	42.4	8.4	10.8	7.7	8.6
1977	24.9	18.2	22.0	40.7	7.1	7.2	6.4	9.3
1978	28.4	21.9	24.9	47.1	5.9	6.8	5.3	7.3
1979	28.7	22.1	24.6	48.7	6.4	8.0	5.9	7.0
1980	30.4	22.6	26.9	50.0	6.3	7.4	5.8	7.2
1981	30.0	20.7	27.5	46.8	6.0	4.9	5.6	8.2
1982	30.8	21.7	27.6	50.6	5.6	6.0	5.2	6.8
1983	30.9	21.1	27.7	51.5	6.6	6.2	6.0	9.2
1984	30.4	16.1	28.1	54.0	5.8	6.8	5.6	5.5
1985	32.1	18.4	30.1	53.1	6.8	9.9	6.3	5.5
1986	33.1	19.9	30.1	55.8	5.8	6.6	5.6	5.7
1987	31.8	17.9	29.7	51.4	6.4	9.5	5.4	6.4
1988	32.5	20.5	28.6	53.7	5.7	5.0	6.1	5.2
1989	34.6	23.8	31.4	52.4	4.4	4.7	4.2	4.6
1990	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1991	34.1	22.4	31.5	53.2	6.4	7.3	5.7	7.6
1992	33.6	23.9	30.5	50.0	6.1	6.9	5.9	5.5
1993	33.7	24.2	30.1	52.3	6.7	8.7	6.0	6.5

[1] Not available.

[2] Comparable data not available due to a change in survey procedures.

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between. See note to supplemental table 2-1 for information on the definition of preschool.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

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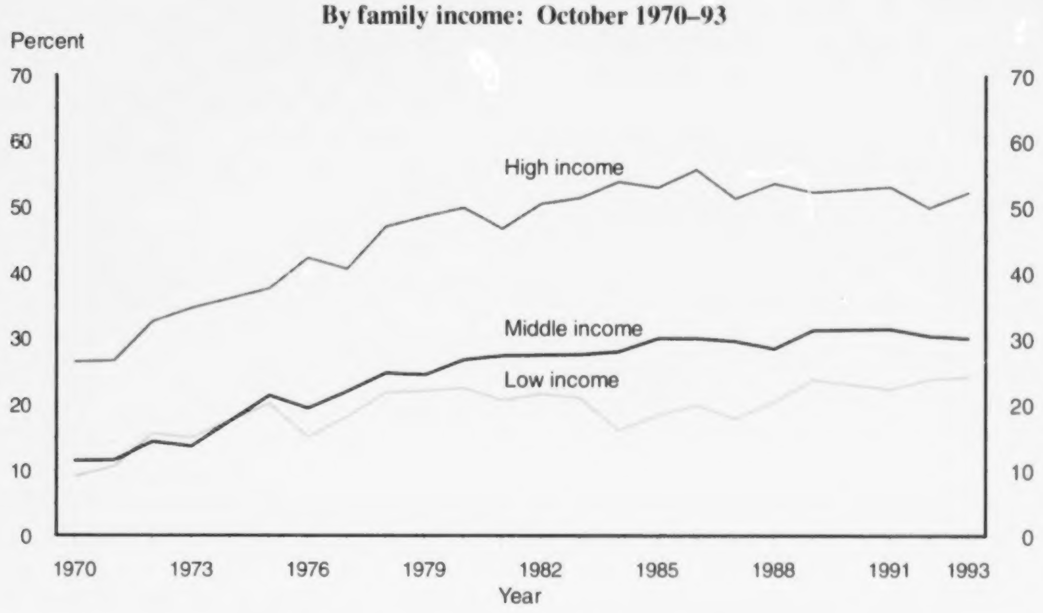
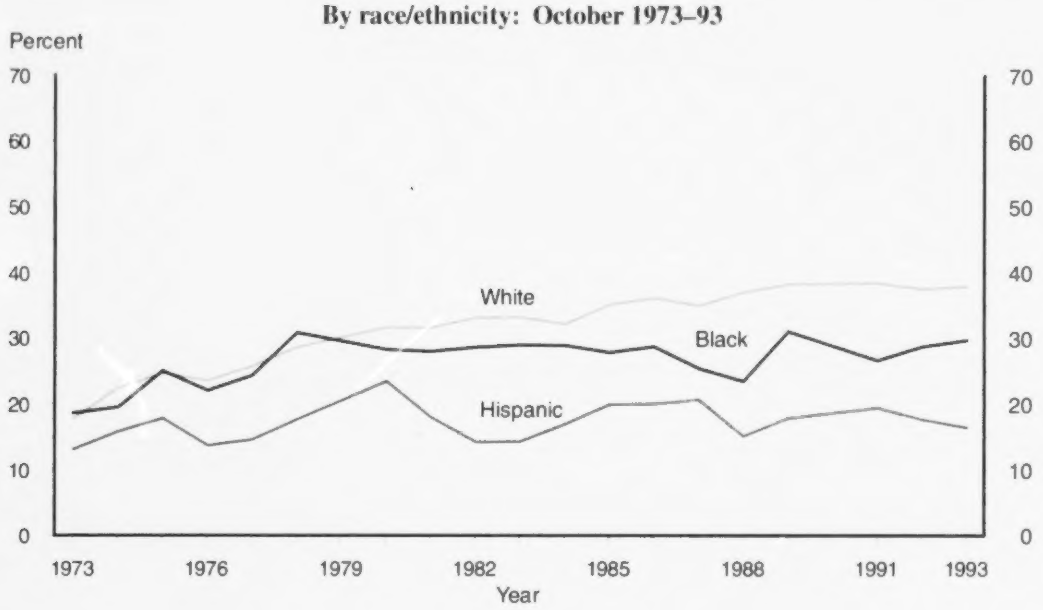
Percentage of children 3 to 4 years old enrolled in preschool





NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between. For 1990, comparable data were not available due to a change in survey procedures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Participation in center-based early childhood programs before kindergarten

- **While 72 percent of all first-graders had previously attended center-based early childhood programs, a smaller proportion of Hispanic first-graders (57 percent) had participated in these programs than their white (73 percent) or black (76 percent) counterparts.**
- **Of those first-graders who had ever attended a center-based program, blacks were more likely than Hispanics to have attended when they were less than 3 years old. In addition, blacks were more likely (85 percent) than Hispanics (73 percent) to have attended center-based programs for at least 1 year.**
- **Students from higher income brackets were more likely to participate in center-based early childhood programs than students of more moderate income brackets. Of those first-graders who had ever attended a center-based program, students from families with incomes over $50,000 were more likely than students whose family income was $50,000 or less to have attended these programs for 2 years or more.**

For many young children, enrollment in kindergarten is no longer their first experience with group educational programs. Moreover, many early education experts believe that children are better prepared for first grade if they have participated in some high quality group care or nursery school. Center-based programs, which include Head Start, nursery school, preschool, prekindergarten, and day care, act as a bridge between the home environment and the classroom.

- **First-graders in single-parent homes who had attended center-based programs were more likely to enter a center-based program at age 2 or younger than were first-graders living with two biological or adoptive parents; however, there were basically no differences in overall participation rates in center-based care across family structure (see supplemental table 3-3).**

Percentage of first-graders who participated in center-based early childhood programs before kindergarten, the length of time they attended kindergarten, and selected characteristics of those who attended center-based programs, by race/ethnicity and family income: 1993

		Race/ethnicity			Family income				
Selected characteristics	Total	White	Black	Hispanic	$10,000 or less	$10,001-20,000	$20,001-35,000	$35,001-50,000	$50,001 or more
Percentage of first-graders who ever attended a center-based program	71.5	72.6	76.2	56.6	61.3	62.5	68.5	77.4	87.2
Age at which first-graders started a center-based program (for those who ever attended)									
Less than 3 years old	26.4	25.5	33.5	19.5	24.3	23.5	24.5	25.0	32.7
3 years old	34.0	35.1	30.8	32.8	29.8	25.1	32.0	36.2	42.6
4 years old	33.2	33.1	29.0	40.1	37.9	43.7	34.9	33.1	22.1
5 years old	6.3	6.4	6.7	7.7	8.0	7.8	8.6	5.8	2.6
Length of time first-graders enrolled in a center-based program (for those who ever attended)									
Less than 1 year	21.6	22.4	15.2	27.2	19.0	33.3	24.1	19.9	14.9
One year, less than 2 years	28.4	25.9	35.1	32.6	38.2	32.9	30.9	28.3	16.9
Two years or more	50.0	51.7	49.7	40.2	42.8	33.8	45.0	51.8	68.2
Length of time first-graders attended kindergarten*									
One year	93.8	93.9	91.8	95.8	90.7	93.2	95.4	94.2	95.2
Two years or more	6.2	6.1	8.2	4.2	9.3	6.8	4.6	5.8	4.8

* Only includes those students who attended kindergarten. Less than 1 percent of the surveyed population did not attend kindergarten. Estimates based on parent reports.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

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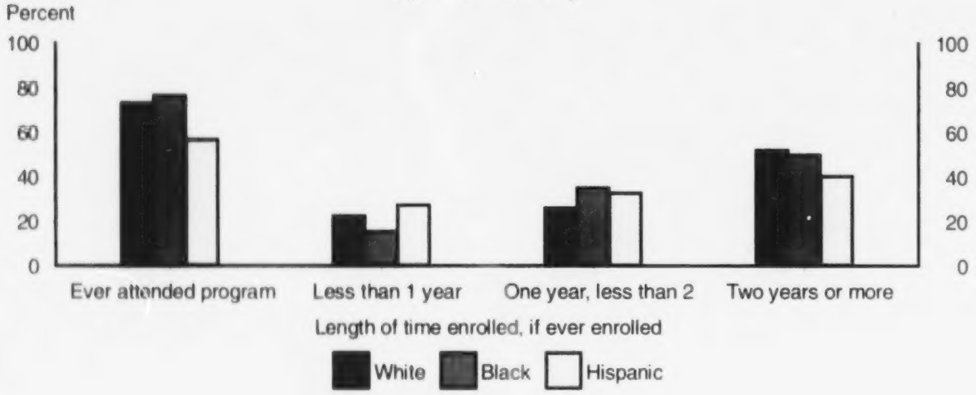
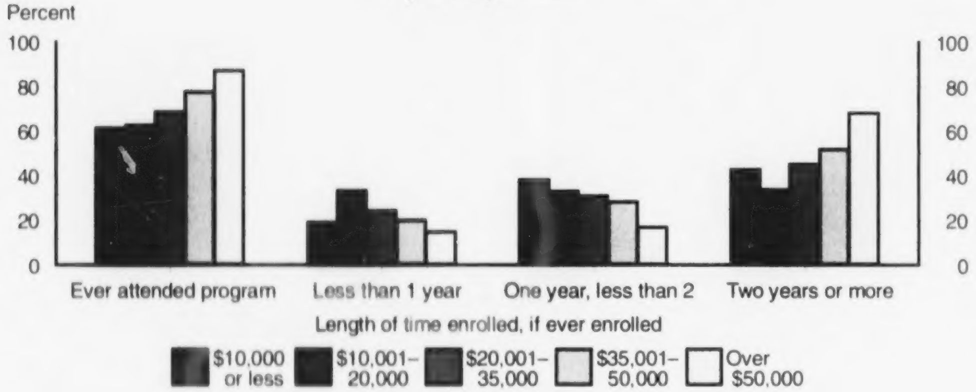
Percentage of first-graders who participated in center-based programs before kindergarten and length of time enrolled, by race/ethnicity, family income, and family structure: 1993

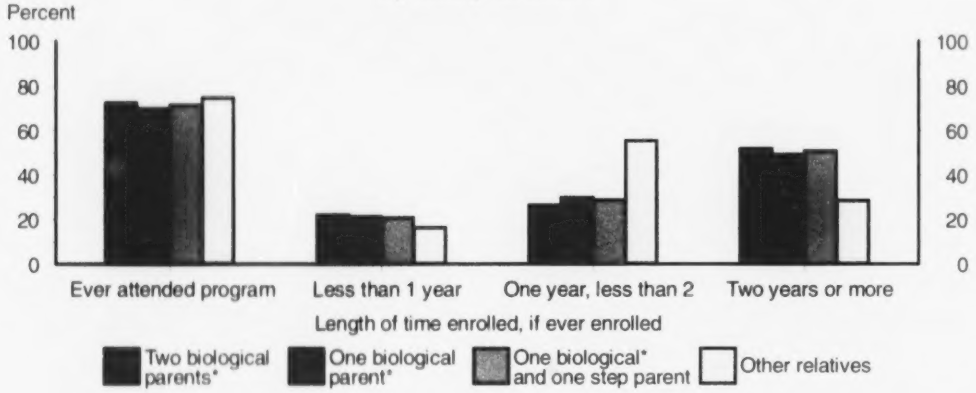
By race/ethnicity



By family income



By family structure



* Adoptive parents are included in the category "biological parents."

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Skills and behaviors of 4-year-olds prior to entering kindergarten

- **A majority of parents indicated that their 4-year-olds were able to identify the primary colors (84 percent), recognize most letters (57 percent), count to at least 20 (62 percent), write their first name (70 percent), and hold a pencil properly (94 percent) (see supplemental table 4-1).**

- **In 1993, a greater percentage of 4-year-old whites were able to identify primary colors and write their first name than were black and Hispanic counterparts. However, blacks were more likely than whites to have mastered the small motor development skills of being able to hold a pencil properly and button their clothes (see supplemental table 4-1). Blacks and whites were more likely than Hispanics to recognize all letters of the alphabet, to count up to 50 or more, and to identify primary colors.**

Prior to entering the school system, children receive training at home and possibly at preschool or day care centers. Children therefore arrive at kindergarten with a wide variety of skills and experiences, which must be integrated into the teaching environment. Examining the extent to which students possess certain behavioral and school-related skills provides educators with a picture of the skill levels of the students who will be entering their classes.

- **About a quarter of 4-year-olds often have tantrums, fidget a lot, and have short attention spans. Hispanic 4-year-olds were more likely than white and black 4-year-olds to fidget a lot and to have short attention spans. In addition, children who lived with two biological or adoptive parents were less likely to have tantrums, fidget a lot, and have short attention spans than those who lived with single parents.**

- **Students from families with incomes above $35,000 were more likely to be able to identify primary colors and to recognize all letters of the alphabet than were students from lower income families (see supplemental table 4-2).**

Skills and behaviors of 4-year-olds not enrolled in kindergarten, by race/ethnicity and family structure: 1993

		Race/ethnicity			Family structure			
Skills and behaviors	Total	White	Black	Hispanic	Two biological[1] parents	One biological[1] parent	One biological[1] and one step parent	Other relatives
Emerging literacy and numeracy					Percentage of children who can:			
Identify all colors[2]	84.2	91.0	73.0	61.4	88.1	75.6	83.0	71.1
Recognize all letters of the alphabet	27.5	31.2	23.4	11.9	29.9	23.2	26.6	7.4
Count up to 50 or more	20.7	22.1	22.6	10.7	21.9	18.5	18.0	16.0
Write first name	70.3	73.7	62.9	58.8	72.4	66.6	67.3	63.9
Social and emotional skills and behaviors								
Often has tantrums	23.1	20.0	24.2	37.1	19.3	30.9	23.5	47.8
Afraid to speak to strangers	42.6	44.4	30.0	44.0	43.3	41.2	43.1	34.8
Fidgets a lot	28.8	25.1	30.9	45.4	25.5	34.1	39.2	42.5
Has short attention span	23.1	19.8	23.9	40.6	19.5	30.3	31.6	26.1
Can be left with babysitter without fuss	90.6	94.6	86.9	75.4	80.5	69.7	68.4	73.9

[1] Adoptive parents are included in the category "biological parents."

[2] Identify the colors red, blue, yellow, and green by name.

NOTE: Estimates based on parent reports, not on direct assessment or observations of children. Additional measures of behavior and skills are included in supplemental tables 4-1 through 4-4.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

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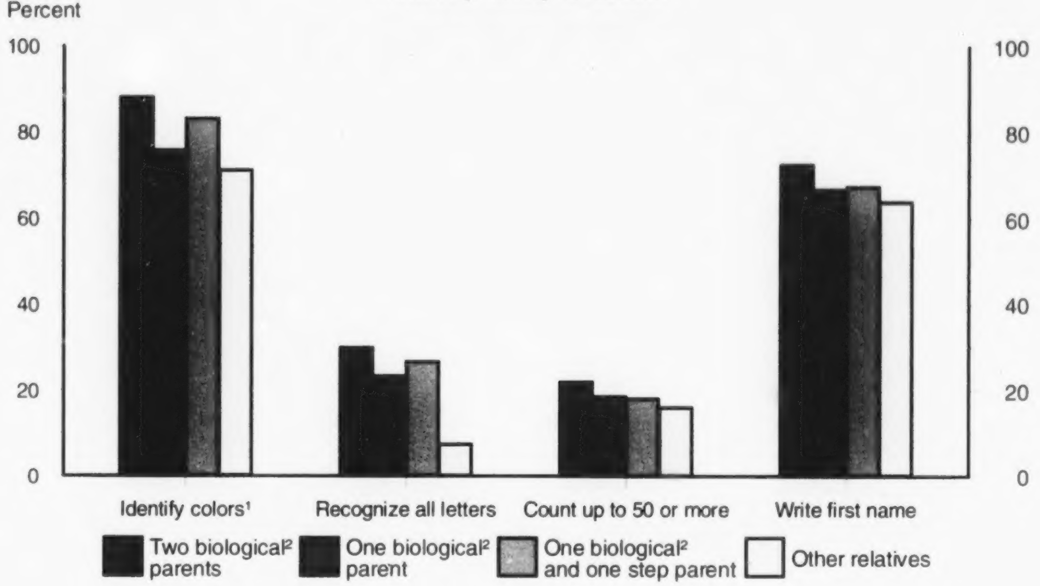
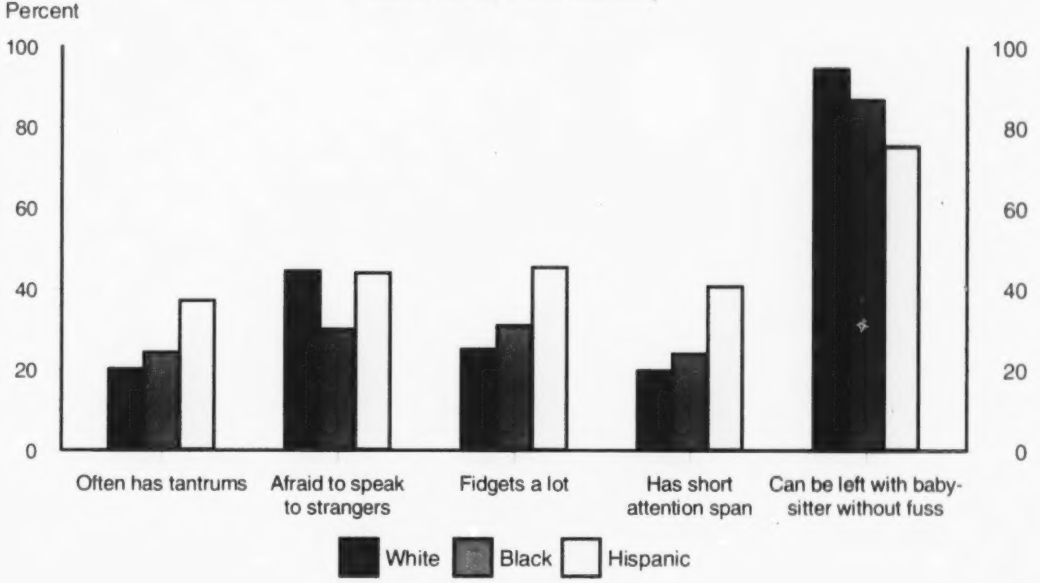
Skills and behaviors of 4-year-olds not enrolled in kindergarten, by race/ethnicity and family structure: 1993

Skills, by family structure



Behavior, by race/ethnicity



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[1] Identify the colors red, blue, yellow, and green by name.

[2] Adoptive parents are included in the category "biological parents."

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Student use of computers

> *In our increasingly technological society, computers are an essential tool. Exposure to computers in school may help young people gain the computer literacy they will need to function effectively in society. Many students have access to computers at home, but the amount of access is directly related to socioeconomic factors. Examining the extent to which students have access to computers either at home or in school may help predict how prepared students will be to enter an automated work force.*

- **In 1993, more than two-thirds of all students in grades 1–12 used a computer either at home or at school, with a majority, 59 percent, using a computer at school.**
- **The percentage of students using a computer at school more than doubled between 1984 and 1993, increasing from 29 to 59 percent. Twenty-eight percent of students used a computer at home in 1993, up from 12 percent in 1984.**
- **Whites were more likely than blacks or Hispanics to use a computer either at home or at school, both in grades 1–6 and in grades 1–12. In 1993, approximately 40 percent of blacks and Hispanics in grades 1–6 did not use computers at all compared to 20 percent of their white counterparts.**
- **Between 1984 and 1993, the proportions of students in grades 7–12 who used a computer either at home or at school increased at similar levels across family income. On one hand, the gain for low income students can be explained primarily by their increased use of computers at school, which rose 32 percentage points; on the other, the gain for high income students can be explained by their increased use of computers at school, which rose 30 percentage points, and at home, which rose 29 percentage points.**

Percentage of students who used a computer at school or at home, by selected characteristics: October 1984, 1989, and 1993

Current education level, race/ethnicity, and family income level*	1984			1989			1993		
	Used a computer at school	Used a computer at home	Used a computer at home or at school	Used a computer at school	Used a computer at home	Used a computer at home or at school	Used a computer at school	Used a computer at home	Used a computer at home or at school
Total (Grades 1-12)	**28.5**	**12.0**	**35.0**	**45.6**	**19.8**	**53.7**	**59.0**	**27.8**	**68.1**
Grades 1-6									
Total	**31.3**	**12.1**	**37.2**	**54.1**	**16.6**	**58.8**	**69.7**	**24.1**	**74.0**
White	36.4	14.8	43.4	60.6	20.9	66.3	74.9	30.5	80.1
Black	15.5	5.3	18.8	36.0	6.2	37.9	56.6	8.7	59.1
Hispanic	16.9	3.6	19.1	42.5	5.2	43.7	57.8	7.1	59.5
Low income	19.1	2.5	20.6	40.9	3.3	42.0	59.8	4.0	60.5
Middle income	30.2	10.0	35.4	54.0	13.5	58.1	69.1	18.8	72.6
High income	43.4	25.0	54.5	64.4	34.6	73.0	78.4	51.4	87.3
Grades 7-12									
Total	**30.7**	**14.3**	**38.5**	**47.0**	**23.0**	**57.0**	**61.2**	**29.7**	**70.4**
White	33.6	17.1	43.0	49.0	27.6	61.0	63.5	37.0	74.8
Black	20.0	5.4	22.6	41.8	9.7	45.4	55.1	11.1	58.3
Hispanic	22.9	3.9	25.1	38.9	10.2	43.3	56.7	10.2	60.5
Low income	21.8	3.6	24.3	42.3	6.6	44.9	53.3	6.1	54.8
Middle income	30.2	10.8	35.7	46.3	18.4	54.3	61.2	23.7	68.4
High income	35.8	26.1	50.4	50.9	41.3	68.9	65.5	55.3	83.0

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

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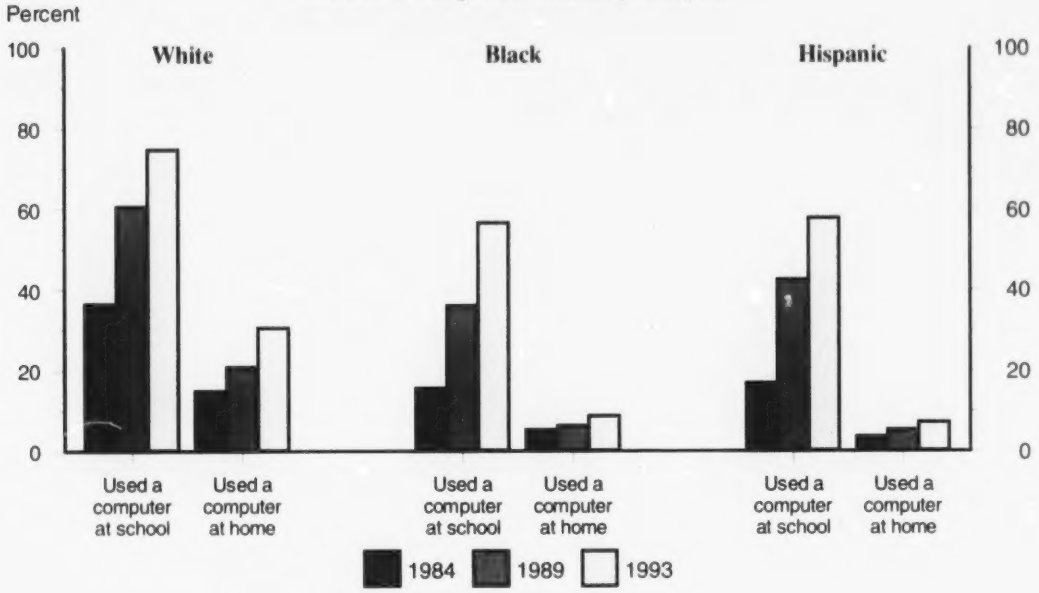
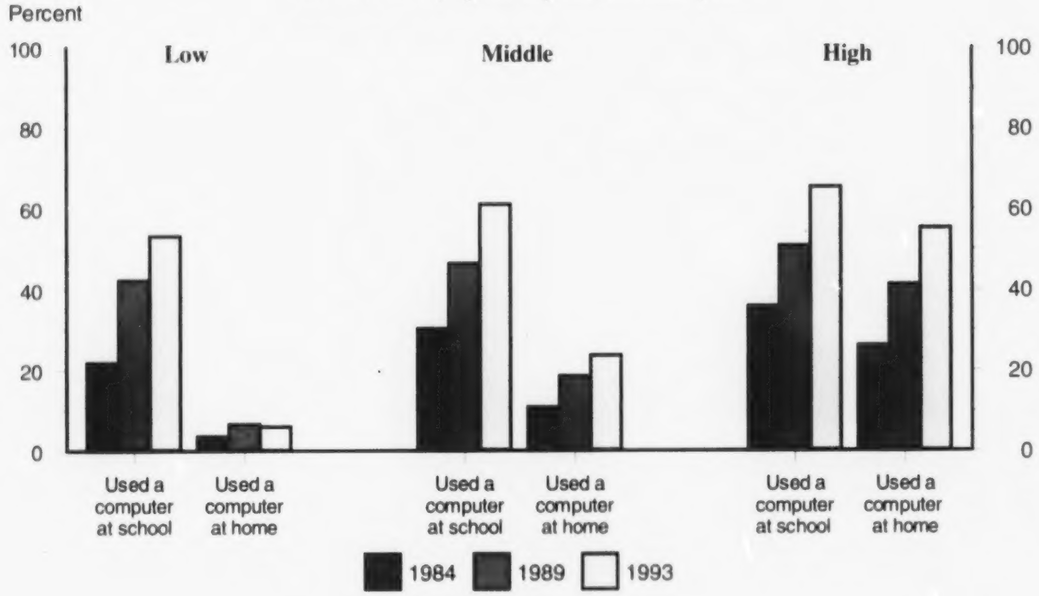
Percentage of students who used a computer at school or at home, by selected characteristics: 1984, 1989, and 1993

Grades 1–6, by race/ethnicity and year



Grades 7–12, by family income and year



* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Persistence in high school

> *Persistent attendance, measured by the proportion of students who maintain their enrollment from one school year to the next, is strongly associated with completing high school. Students who do not complete high school face a decreased opportunity for assuming a successful and fully functional place in the American work place and society at large.*

- **Ninety-six percent of 15- to 24-year-olds who were enrolled in grades 10–12 in 1992 were enrolled again in 1993 or had graduated. Four percent were not enrolled in school in 1993, even though they had not completed high school. Some of these dropouts may re-enroll during a subsequent school year.**
- **The high school persistence rate for students from high income families was 11 percentage points higher than the rate for students from low income families. The difference in persistence rates between students from high and middle income families was only 3 percentage points.**
- **In 1993, for the average of the first 3 years of college (grades 13–15), blacks were less likely than whites to continue their enrollment, but those blacks who did remain in college were equally as likely as whites to advance to the next level (see supplemental table 6-2).**

Percentage of high school students in grades 10–12, aged 15–24, enrolled the previous October who were enrolled again the following October[1], by sex, race/ethnicity, and family income: October 1972–93

		Sex		Race/ethnicity[2]			Family income[3]		
October	Total	Male	Female	White	Black	Hispanic	Low	Middle	High
1972	93.9	94.1	93.7	94.7	90.5	88.8	86.2	93.3	97.5
1973	93.7	93.2	94.3	94.5	90.1	90.0	82.9	93.2	98.2
1974	93.3	92.6	94.0	94.2	88.4	90.1	—	—	—
1975	94.2	94.6	93.9	95.0	91.3	89.1	84.7	94.1	97.4
1976	94.1	93.5	94.8	94.4	92.6	92.7	85.0	93.3	97.9
1977	93.5	93.1	93.9	93.9	91.4	92.2	84.9	92.5	97.8
1978	93.3	92.5	94.1	94.2	89.8	87.7	82.9	92.8	97.0
1979	93.3	93.2	93.3	94.0	90.1	90.2	83.3	93.2	96.4
1980	93.9	93.3	94.5	94.8	91.8	88.3	84.5	93.7	97.6
1981	94.1	94.0	94.2	95.2	90.3	89.3	86.0	94.0	97.2
1982	94.5	94.2	94.9	95.3	92.2	90.8	85.3	94.6	98.2
1983	94.8	94.2	95.3	95.6	93.0	89.9	89.9	94.1	97.8
1984	94.9	94.6	95.2	95.6	94.3	88.9	86.8	95.0	98.2
1985	94.8	94.6	95.0	95.7	92.2	90.2	86.3	94.9	97.9
1986	95.3	95.3	95.3	96.3	94.6	88.1	89.5	95.0	98.4
1987	95.9	95.7	96.2	96.5	93.6	94.6	90.1	95.5	99.1
1988	95.2	94.9	95.6	95.8	94.1	89.6	86.6	95.3	98.9
1989	95.5	95.5	95.5	96.5	92.2	92.2	90.0	95.0	98.9
1990	96.0	96.0	96.1	96.7	95.0	92.1	90.7	95.8	98.9
1991	96.0	96.2	95.8	96.8	94.0	92.7	89.4	96.0	99.0
1992[4]	95.6	96.1	95.1	96.3	95.0	91.8	89.1	95.6	98.7
1993[4]	95.5	95.4	95.7	96.1	94.2	93.3	87.7	95.7	98.7

— Not available.

[1] Or who had completed high school.

[2] Not shown separately but included in the total are non-Hispanics who are neither black nor white.

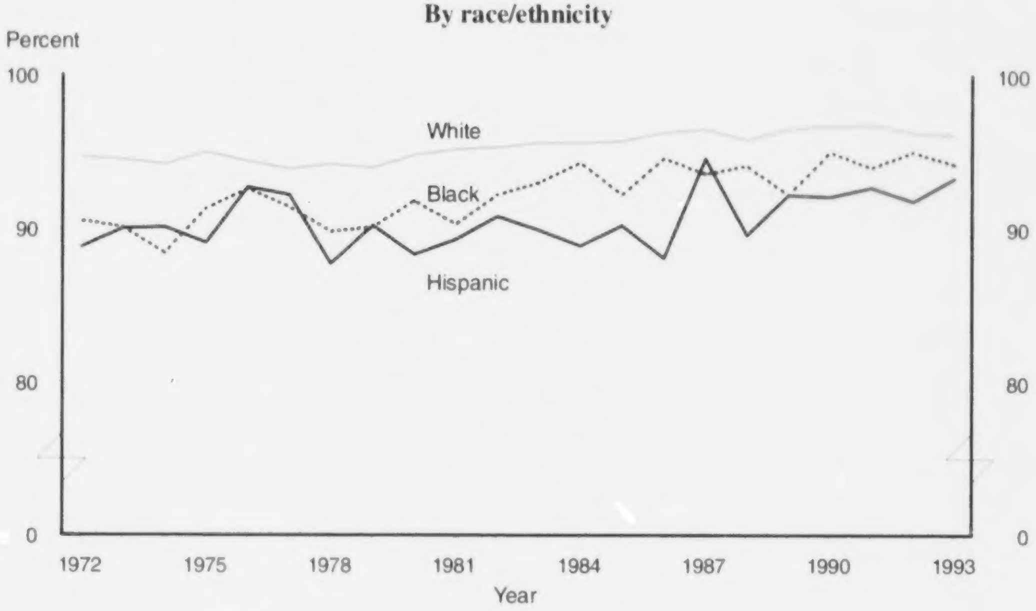
[3] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

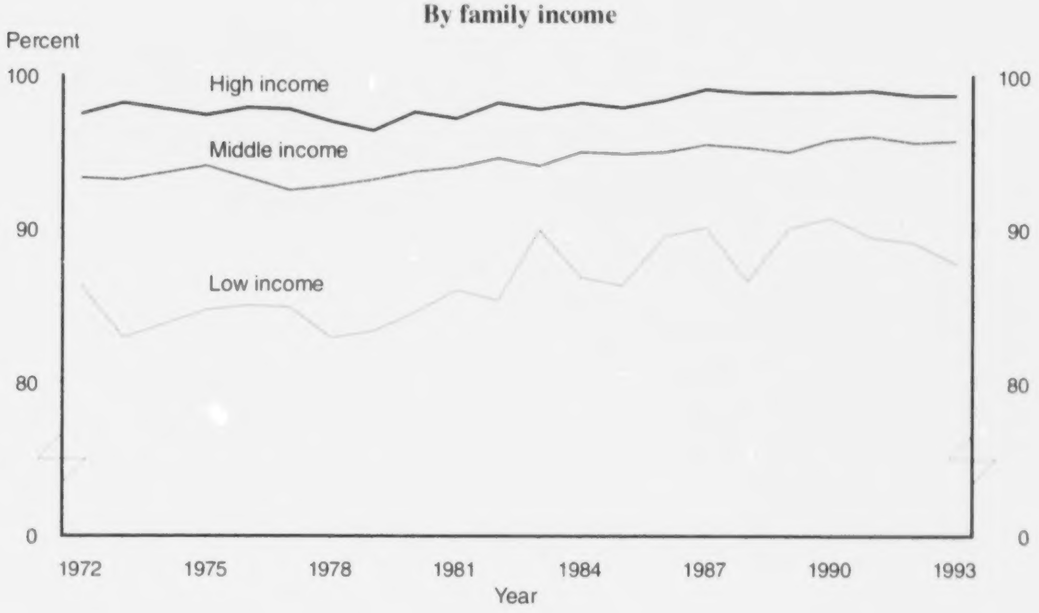
[4] Beginning in 1992, the Current Population Survey changed the questions used to obtain the educational attainment of respondents. See the supplemental note to this indicator and *Indicator 22* for further discussion.

NOTE: See the supplemental note to this indicator for details on how the persistence rates in this table were calculated.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys. U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1993*.

Percentage of high school students in grades 10–12, aged 15–24, enrolled the previous October who were enrolled again in the following October*: 1972–93





* Or who had completed high school.

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys. U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1993.*

College costs and family income

- **Between 1980 and 1993, college costs have risen rapidly in both public and private institutions, with tuition, room, and board increasing more at private colleges than at public colleges (68 versus 42 percent in 1994 constant dollars).**

- **Between 1980 and 1993, tuition, room, and board at public institutions increased from 10 percent to 14 percent of median family income (for families with children 6 to 17 years old). This increase was larger for low income families than for high income families—it increased from 16 to 23 percent for families at the 25th percentile of family income compared to an increase from 7 to 10 percent for those at the 75th percentile.**

A family's ability to afford college for its children depends on many factors, including tuition levels, availability of financial aid, family income and assets, and family size. Tuition, room, and board are a measure of the gross price of college. The average cost for tuition, room, and board as a percentage of family income is an indicator of the affordability of a college education.

- **After periods of decline in the 1960s and 1970s, the tuition, room, and board at public institutions rose to a high of 15 percent of median family income (for all families) in 1993. At private institutions, tuition, room, and board as a percentage of median family income rose every year between 1979 and 1993, rising from 23 to 41 percent (see supplemental table 7-1).**

Average tuition, room, and board (in 1994 constant dollars) and as a percent of income of families with children 6 to 17* years old at selected percentiles: 1975–93

	Public institutions						Private institutions					
	Constant	Family income percentile					Constant	Family income percentile				
Year	dollars	10th	25th	50th	75th	90th	dollars	10th	25th	50th	75th	90th
1975	$4,458	31.1	16.4	10.2	7.3	5.4	$9,802	68.4	36.1	22.5	16.0	11.8
1976	4,523	30.9	16.3	10.0	7.1	5.3	9,876	67.4	35.6	21.8	15.6	11.5
1977	4,473	30.8	16.3	9.8	7.0	5.2	9,852	67.7	35.8	21.6	15.4	11.4
1978	4,320	30.2	15.6	9.4	6.8	5.0	9,779	68.4	35.2	21.3	15.4	11.3
1979	4,139	28.0	15.1	9.1	6.3	4.6	9,390	63.6	34.3	20.7	14.4	10.5
1980	4,065	32.3	16.3	9.6	6.6	4.8	9,371	74.6	37.6	22.1	15.1	11.1
1981	4,199	34.7	17.7	10.2	7.0	5.1	9,723	80.3	41.0	23.6	16.1	11.8
1982	4,453	41.5	19.5	11.0	7.4	5.4	10,463	97.5	45.8	25.9	17.5	12.6
1983	4,601	42.4	20.4	11.5	7.5	5.4	10,947	100.9	48.4	27.3	17.9	13.0
1984	4,782	43.7	20.5	11.7	7.7	5.5	11,508	105.2	49.3	28.1	18.5	13.2
1985	4,870	43.1	20.3	11.5	7.7	5.5	12,117	107.3	50.5	28.6	19.1	13.8
1986	5,076	46.4	21.3	11.9	7.8	5.6	12,909	118.0	54.1	30.2	19.8	14.2
1987	5,188	47.7	21.7	11.8	7.8	5.6	13,466	123.8	56.2	30.8	20.2	14.6
1988	5,234	45.7	21.5	12.0	7.9	5.7	13,701	119.5	56.2	31.3	20.6	14.8
1989	5,264	43.6	21.4	12.0	7.9	5.6	14,046	116.3	57.1	32.1	21.2	15.0
1990	5,271	46.3	22.2	12.6	8.2	5.7	14,306	125.7	60.2	34.2	22.2	15.6
1991	5,514	52.3	23.9	13.2	8.7	6.2	14,933	141.7	64.8	35.8	23.6	16.8
1992	5,601	51.5	24.8	13.6	8.8	6.2	15,237	140.1	67.5	37.0	24.0	17.0
1993	5,781	58.0	22.7	14.3	10.0	6.3	15,766	158.1	61.9	38.9	27.2	17.1

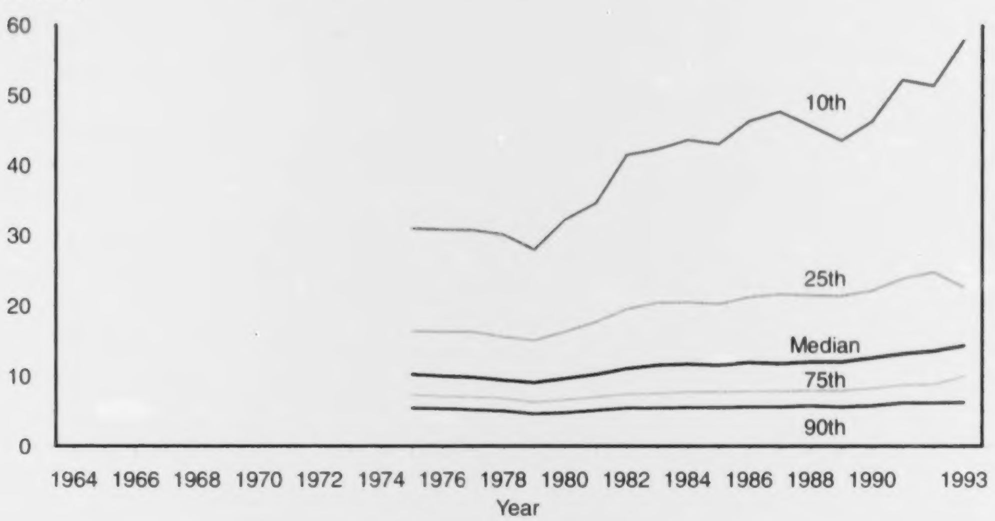
* These families may have children age 18 and older; however, they have at least one child between 6 and 17 years old, and none under 6. All families, not just married-couple families, are included. Supplemental table 7-1 provides data for a longer series of years but is based on the incomes of *all* families.

NOTE: Tuition, room, and board includes those for 2-year colleges, 4-year colleges, and universities. In-state tuition and fees are used for public institutions.

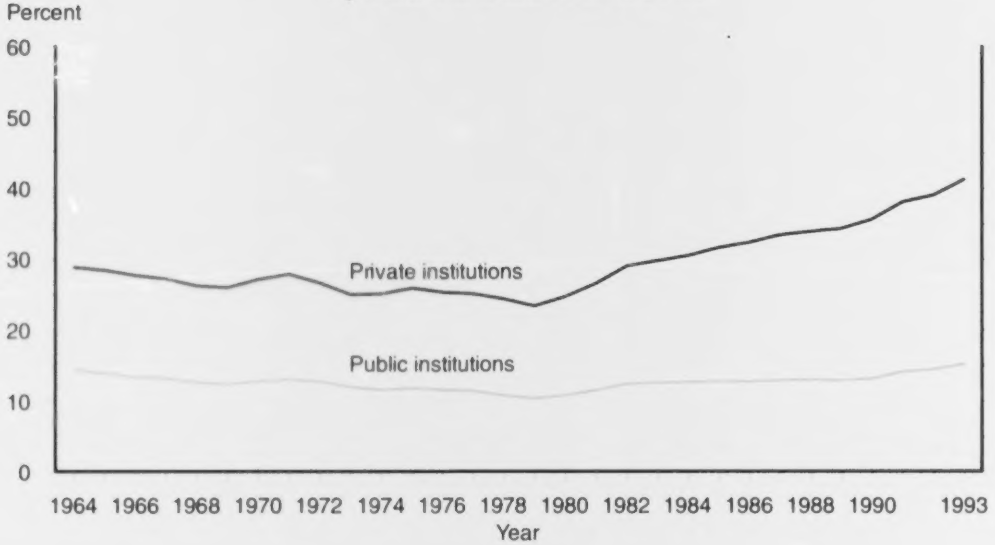
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 304. U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-60 (based on the March supplement to the Current Population Survey).

Undergraduate tuition, room, and board as a percentage of family income

For public institutions, as a percentage of income of families with children 6 to 17 years old at selected income percentiles: 1975–93



As a percentage of median income of all families, by control of institution: 1964–93



NOTE: In-state tuition and fees are used for public institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 304. U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-60 (based on the March supplement to the Current Population Survey).

Time to complete a doctorate degree, by field of study

- **Among all dependent, full-time undergraduate students attending public 4-year institutions, average grant aid received was 29 percent of the average tuition and fees charged during the 1992–93 academic year. This ratio varied from 80 percent for students from low income families to 10 percent for those from high income families. This ratio also varied from 16 percent for dependent full-time students at private for-profit institutions (calculated from supplemental table 8-1) to 37 percent for those at public 2-year institutions.**

- **The average net cost (total cost minus total aid) was 80 percent of the average total cost ($7,326 versus $9,187) for dependent, full-time undergraduates attending public 4-year colleges. This ratio varied from 57 percent for students from low income families to 91 percent for those from high income families. This ratio also varied from 89 percent for students attending public 2-year colleges to 67 percent for students attending private, not-for-profit, 4-year institutions.**

Cost may affect a student's access to a college education. The net cost of college attendance is total cost minus total aid—that is, tuition, fees, and living expenses minus grants, loans, and work study. Net cost as a percentage of total cost is a measure of the fraction of cost that remains to be financed by students and their families after student financial aid is used. However, living expenses arguably must be incurred whether or not a student attends college, loans must be repaid, and work study is payment for work. A second measure, grant aid as a percentage of tuition and fees paid, provides an indication of the discount received on educational expenses.

- **Among independent, full-time students at private, for-profit institutions, the average grant aid received ($1,346) was 28 percent of the average tuition and fees charged ($4,748). This ratio varied from 37 to 18 percent for students with low to high household income (calculated from supplemental table 8-1).**

Cost of college attendance and student financial aid for dependent, full-time undergraduate students, by family income and type and control of institution: Academic year 1992–93

Type and control of institution and family income of dependent students	Tuition and fees	Total cost	Grants	Total aid	Net cost	Ratios: Grants to tuition and fees	Ratios: Net cost to total cost
Public 4-year institutions							
Dependent, full-time students	$2,947	$9,187	$855	$1,864	$7,326	29	80
Low income	2,559	8,820	2,041	3,746	5,070	80	57
Lower middle	2,728	8,878	961	2,422	6,426	35	72
Upper middle	2,846	8,924	509	1,331	7,598	18	85
High income	3,382	9,758	354	890	8,879	10	91
Private, not-for-profit, 4-year							
Dependent, full-time students	11,004	17,301	3,455	5,697	11,552	31	67
Low income	8,444	14,232	5,417	8,350	5,872	64	41
Lower middle	10,560	16,905	4,890	8,270	8,590	46	51
Upper middle	11,195	17,422	4,240	6,934	10,407	38	60
High income	12,399	18,958	1,736	3,150	15,752	14	83
Public 2-year							
Dependent, full-time students	1,072	6,410	395	600	5,717	37	89
Low income	948	6,199	1,027	1,322	4,848	108	78
Lower middle	1,052	5,995	312	588	5,348	30	89
Upper middle	1,134	7,060	122	247	6,686	11	95
High income	1,311	6,745	83	167	6,367	6	94

NOTE: Total cost includes budget allowances for student living expenses; total aid includes grants, loans, and work study; net cost is total cost minus total aid. See supplemental note to this indicator for more detailed definitions of concepts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study: 1993.

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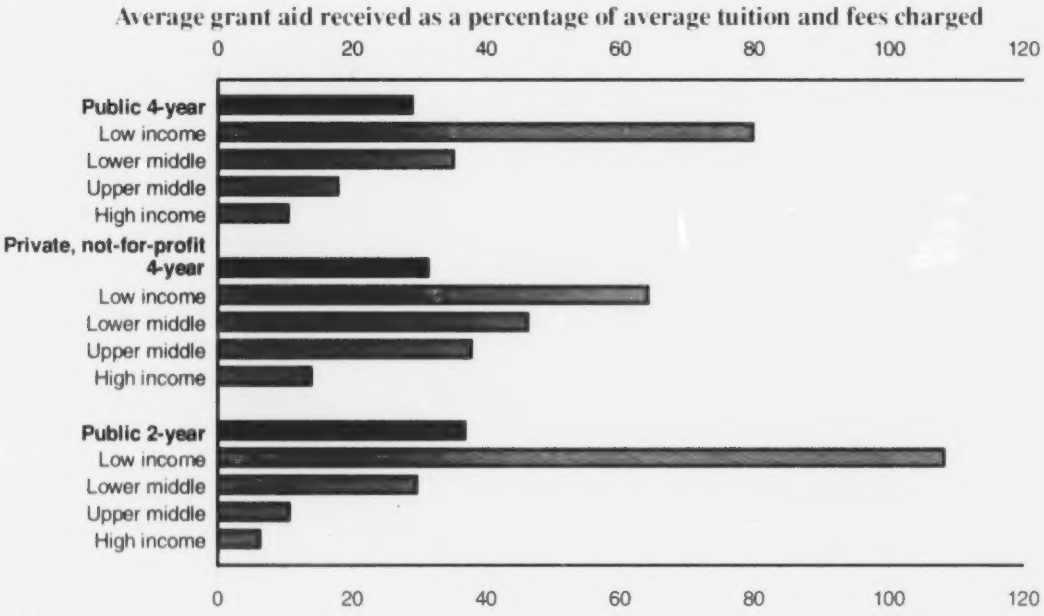
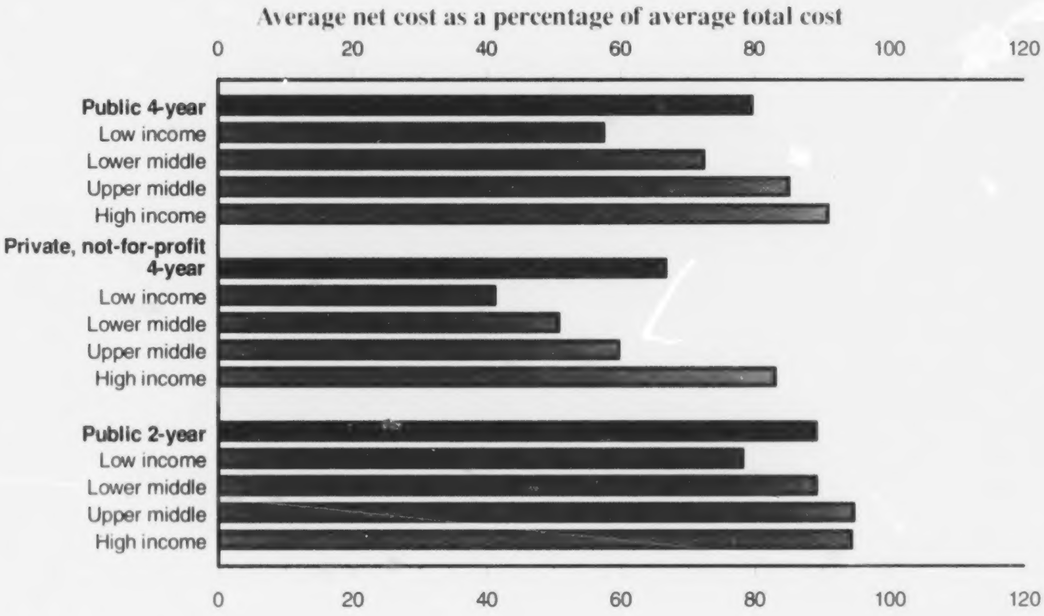
College cost and student financial aid for dependent, full-time undergraduates, by type and control of institution and family income: Academic year 1992–93





SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study: 1993.

Immediate transition from high school to college

- **Sixty-two percent of 1993 high school graduates were enrolled in college the October following graduation—22 percent in 2-year colleges and 39 percent in 4-year colleges.**
- **Between 1973 and 1993, the proportion of high school graduates going directly to college increased from 47 to 62 percent. Historically, more students enroll in 4-year colleges, but the proportion of students choosing 2-year colleges was higher in 1993 than in 1973.**
- **High school graduates from low income families were twice as likely to go directly to college in 1993 than in 1973. Yet, only 50 percent of high school graduates from low income families went directly to college as compared to 79 percent of those from high income families.**

Most college students enroll in college immediately after finishing high school. The percentage of high school graduates enrolled in college the October following graduation is a leading indicator of the total proportion of that year's graduates who will ever enroll in college. The percentage enrolling is a reflection not only of the accessibility of higher education to high school graduates but also of their assessment of the value of attending college compared to working, entering the military, traveling, and other possible pursuits.

Percentage of high school graduates who were enrolled in college the October following graduation, by type of college, family income, and race/ethnicity: 1972–93

	Type of college			Family income[1]			Race/ethnicity		
October	Total	2-year	4-year	Low	Middle	High	White	Black	Hispanic
1972	49.2	—	—	26.1	45.2	63.8	49.7	44.6	(2)
1973	46.6	14.9	31.7	20.3	40.9	64.4	47.8	32.5	48.8
1974	47.6	15.2	32.4	—	—	—	47.2	47.2	(2)
1975	50.7	18.2	32.6	31.2	46.2	64.5	51.1	41.7	(2)
1976	48.8	15.6	33.3	39.1	40.5	63.0	48.8	44.4	(2)
1977	50.6	17.5	33.1	27.7	44.2	66.3	50.8	49.5	48.8
1978	50.1	17.0	33.1	31.4	44.3	64.0	50.5	46.4	(2)
1979	49.3	17.5	31.8	30.5	43.2	63.2	49.9	46.7	(2)
1980	49.3	19.4	29.9	32.5	42.5	65.2	49.8	42.7	49.6
1981	53.9	20.5	33.5	33.6	49.2	67.6	54.9	42.7	(2)
1982	50.6	19.1	31.5	32.8	41.7	70.9	52.7	35.8	(2)
1983	52.7	19.2	33.5	34.6	45.2	70.3	55.0	38.2	46.7
1984	55.2	19.4	35.8	34.5	48.4	74.0	59.0	39.8	(2)
1985	57.7	19.6	38.1	40.2	50.6	74.6	60.1	42.2	(2)
1986	53.8	19.3	34.5	33.9	48.5	71.0	56.8	36.9	42.3
1987	56.8	18.9	37.9	36.9	50.0	73.8	58.6	52.2	(2)
1988	58.9	21.9	37.1	42.5	54.7	72.8	61.1	44.4	(2)
1989	59.6	20.7	38.9	48.1	55.4	70.7	60.7	53.4	52.7
1990	60.1	20.1	40.0	46.7	54.4	76.6	63.0	46.8	(2)
1991	62.5	24.9	37.7	39.5	58.4	78.2	65.4	46.4	(2)
1992	61.9	23.0	38.9	40.9	57.0	79.0	64.3	48.2	58.2
1993	61.5	22.4	39.1	50.4	56.9	79.3	62.9	55.6	(2)

— Not available.

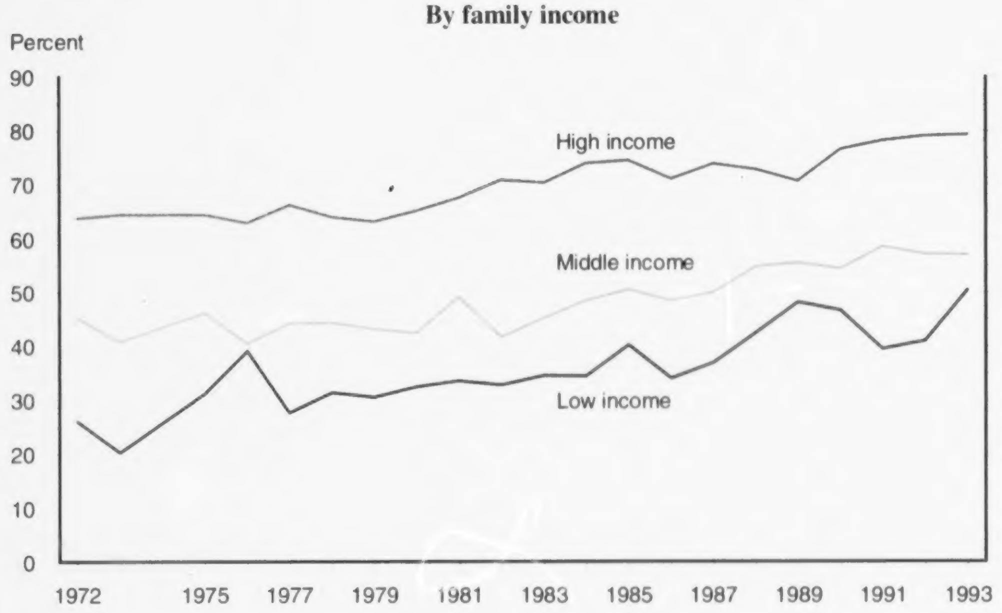
[1] Revised from previously published figures.

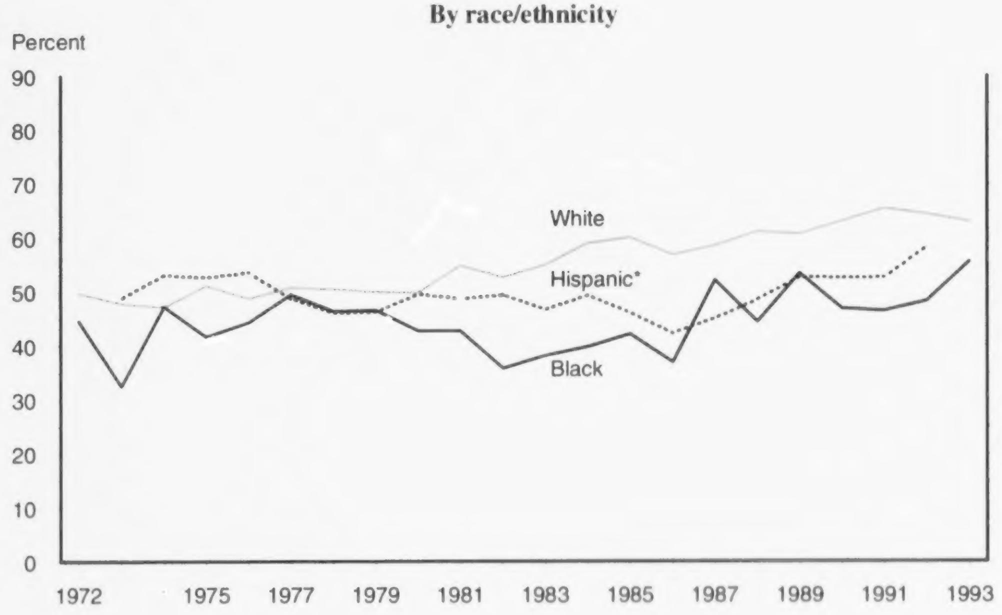
[2] Due to the small sample size for the Hispanic category, 3-year averages were calculated. The 3-year average for 1992 is the average percentage of graduates enrolled in college in 1991, 1992, and 1993.

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Percentage of high school graduates enrolled in college the October following graduation: October 1972-93





* Due to the small sample size for the Hispanic category, 3-year overlapping averages were calculated. The 3-year average for1992 is the average percentage of graduates enrolled in college in 1991, 1992, and 1993.

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Activities of 1990 2-year college students 1 year later

- **Of all 2-year college students in October 1990, 23 percent were enrolled in some type of postsecondary institution 1 year later. This rate was about the same for black, Hispanic, and white students. However, the rate did vary by age and sex; older students and females were less likely to be enrolled a year later than younger students and males, respectively.**
- **Among 2-year college students in October 1990 who indicated they had completed 1 year of college by October 1991, 17 percent were still enrolled in a 2-year college at that time. Among those who indicated they had completed 2 years of college by October 1991, 22 percent had enrolled in a 4-year college and were pursuing a bachelor's degree.**

Two-year colleges have many roles in American higher education. They are usually located near students' homes, are inexpensive, and offer students an opportunity to begin a 4-year program and later transfer to a 4-year school. Moreover, 2-year colleges offer occupationally specific programs that help students acquire skills that make it easier for them to find work. At 2-year colleges, students who work full time can attend part time and take a few specific courses, or they can pursue a 2-year program over a longer period of time. Following the next-year activities of 2-year college students provides an indication of how students are using 2-year colleges to further their educational goals.

- **Among 2-year college students in October 1990, 77 percent were not students a year later; 63 percent were not students but were working. The unemployment rate was 10 percent among these nonstudents.**

Activities of 2-year college students in October 1990 1 year later, by selected characteristics: October 1991

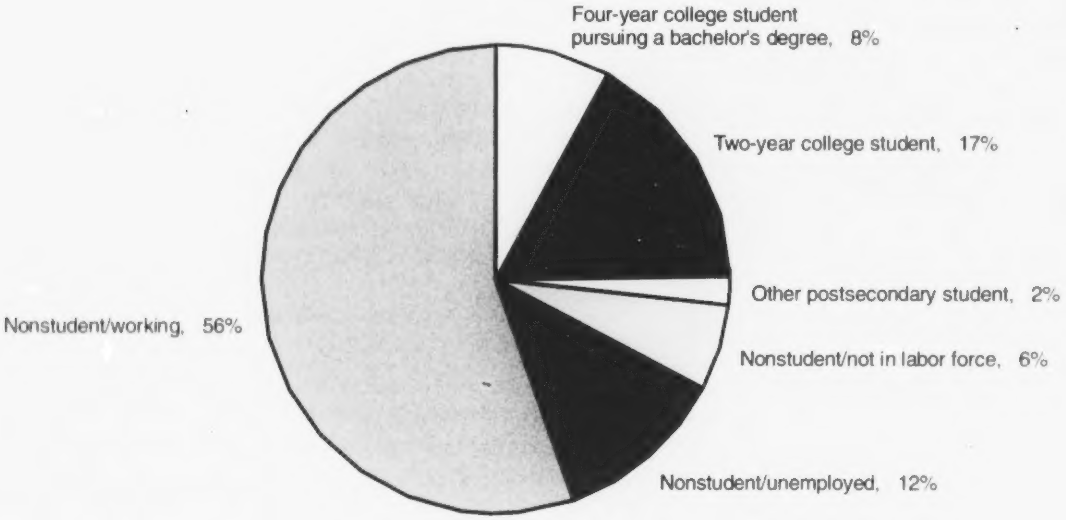
	Percentage in each activity category							
	Students			Nonstudents				
Student characteristics	Total*	2-year school	4-year school pursuing a bachelor's degree	Total	Working	Unemployed	Not in the labor force	Unemployment rate of nonstudents
All	**22.9**	**9.1**	**11.0**	**77.1**	**62.8**	**7.1**	**7.2**	**10.2**
Age in 1991								
15–20	36.9	16.1	18.4	63.1	50.7	6.7	5.7	11.7
21–24	30.1	9.0	19.1	69.9	55.9	8.6	5.3	13.3
25–29	14.4	5.9	6.1	85.6	69.6	8.0	8.0	10.3
30–35	19.0	10.3	2.2	81.0	70.0	6.2	4.8	8.1
36 and over	9.2	3.8	3.9	90.8	73.0	5.9	12.0	7.4
Race/ethnicity								
White	22.5	9.4	10.6	77.5	64.3	6.3	6.8	8.9
Black	23.5	10.2	11.7	76.5	60.1	9.9	6.4	14.1
Hispanic	20.3	4.9	11.6	79.7	60.6	6.5	12.5	9.7
Years of education completed by October 1991								
Less than a full year of college	10.8	6.7	3.6	89.2	70.5	8.0	10.6	10.2
1 year of college	26.7	17.1	7.7	73.3	56.0	11.6	5.7	17.1
2 years of college	30.4	5.9	21.5	69.6	60.0	5.4	4.3	8.2
3 years of college or more	20.0	5.1	7.5	80.0	68.4	0.9	10.7	1.3
Sex								
Male	27.5	10.1	14.0	72.5	60.6	8.3	3.6	12.1
Female	19.5	8.4	8.8	80.5	64.4	6.3	9.9	8.9

* Included in the total but not shown separately are students attending other types of schools (such as trade or technical schools) and students at 4-year schools who were not pursuing a bachelor's degree. Additional detail may be found in supplemental table 10-1.

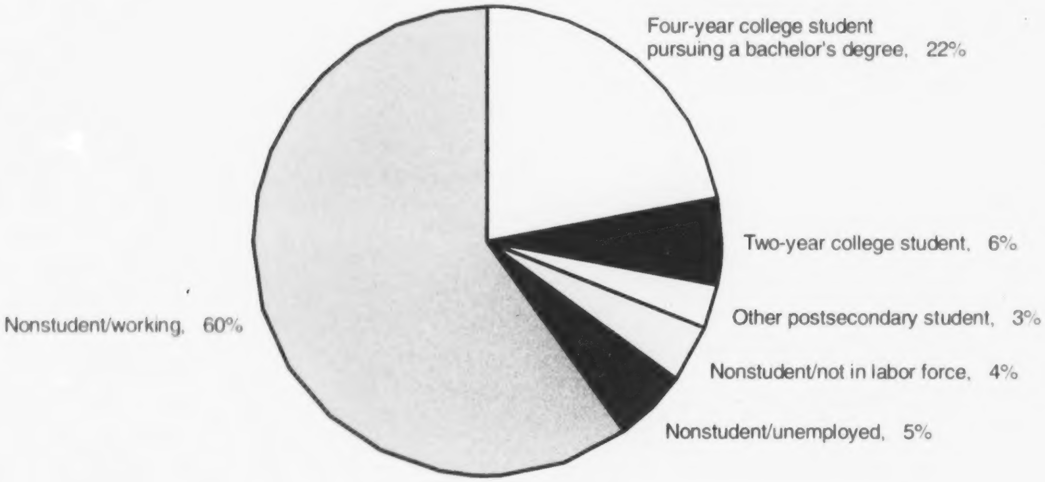
SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, October 1991.

Activities of 2-year college students in October 1990 1 year later, by years of college completed in October 1991

Completed 1 year of college: (October 1991)



Completed 2 years of college: (October 1991)



SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, October 1991.

Net cost of attending postsecondary education

- **Between 1970 and 1993, total time-to-degree among doctoral students increased for all fields of study, with the largest increase in years occurring in the education and other technical/professional fields.**
- **Time-to-degree varied by field of study throughout the 1970–93 time period. Students who majored in the natural sciences or in computer sciences and engineering took less time on average to complete their doctorates, whereas students who majored in education or other technical/professional fields generally took longer.**
- **Registered time-to-degree increased slightly between 1970 and 1993, and showed less variability across fields of study and between males and females than total time-to-degree (see supplemental tables 11-2 and 11-3).**

Trends in the number of years doctoral students take to complete their degrees suggest changes in the time needed to produce doctorate-level personnel. These trends also may provide clues to other important changes, such as in students' financial resources and amount of part-time study. Total time-to-degree (TTD) measures the number of years between completion of the baccalaureate and doctorate degrees, including nonenrolled as well as enrolled time. Registered time-to-degree (RTD), however, only measures the number of years enrolled, full time or part time, in graduate school.

- **While overall females tend to take longer to complete their doctorates, within the same fields of study, male and female total time-to-degree is similar except in the education and other technical/professional fields (see supplemental tables 11-2 and 11-3).**
- **Total time-to-degree differs for students with various types of primary sources of financial support in graduate school. Students whose primary source of support was personal resources had the longest time between completing their bachelor's and doctor's degrees, whereas students with federal research assistantships had the shortest. Types of primary financial support were less related to registered time-to-degree (see supplemental table 11-4).**

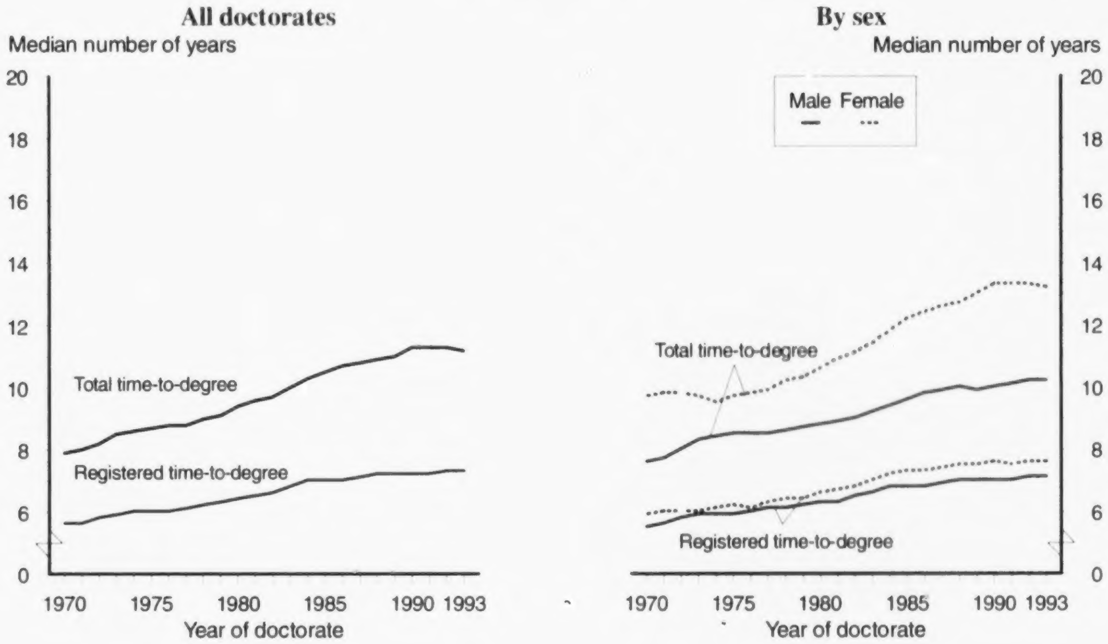
Median total time-to-degree for doctorate degrees among U.S. citizens and permanent U.S. residents, by sex and field of study: Selected years of doctorate 1970–93

				Field of study					
Year of doctorate	Total	Sex							
		Male	Female	Humanities	Social and behavioral sciences	Natural sciences	Computer sciences and engineering	Education	Other technical/ professional*
					Total time-to-degree (TTD, in median years)				
1970	7.9	7.6	9.7	9.2	7.6	6.1	6.9	12.7	8.5
1972	8.2	8.0	9.8	9.2	7.7	6.5	7.6	12.6	8.6
1974	8.6	8.4	9.5	9.4	8.0	6.8	7.9	12.5	8.9
1976	8.8	8.5	9.8	9.7	8.1	6.8	7.8	12.8	9.5
1978	9.0	8.6	10.2	10.1	8.3	6.9	7.8	12.8	9.6
1980	9.4	8.8	10.6	10.7	8.8	6.8	7.7	13.3	9.8
1982	9.7	9.0	11.1	11.2	9.4	6.9	7.9	13.9	10.2
1984	10.3	9.4	11.8	11.5	9.9	7.3	7.9	14.9	10.9
1986	10.7	9.8	12.4	12.2	10.2	7.4	7.9	16.0	11.8
1988	10.9	10.0	12.7	12.4	10.8	7.5	8.0	17.2	12.4
1990	11.3	10.0	13.3	12.4	10.9	7.6	8.2	18.3	12.9
1991	11.3	10.1	13.3	12.6	10.9	7.6	8.3	18.8	13.6
1992	11.3	10.2	13.3	12.3	11.0	7.8	8.4	19.3	13.8
1993	11.2	10.2	13.2	12.2	10.8	7.8	8.7	19.7	14.0

* Principally composed of agricultural sciences, business and management, communications, health sciences, and other occupationally oriented fields.

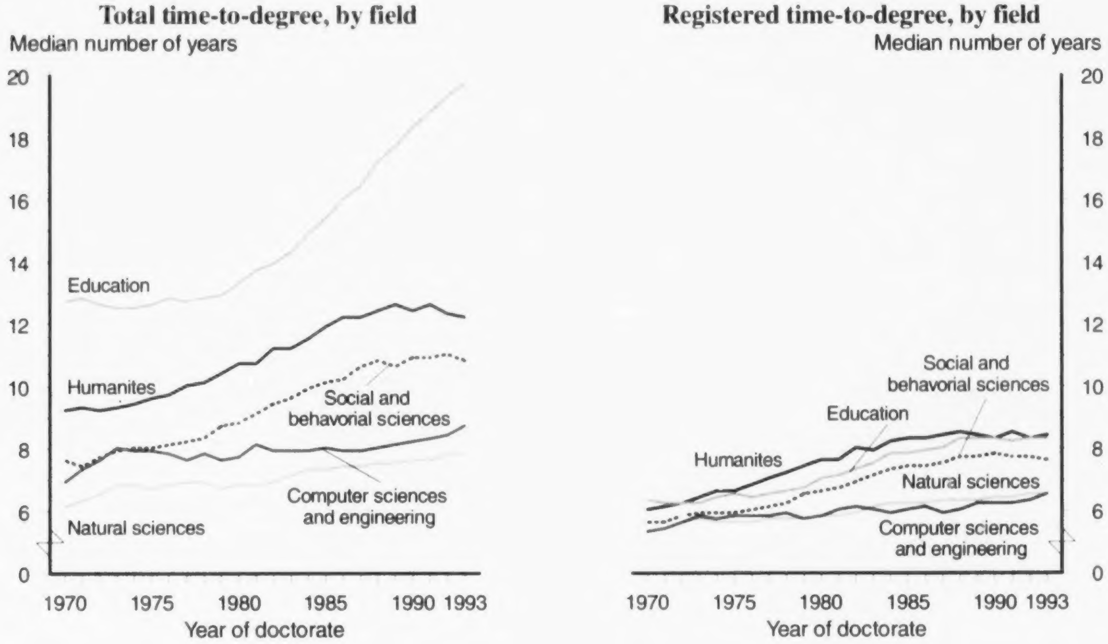
SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Median total time-to-degree and registered time-to-degree for doctorate degrees among U.S. citizens and permanent U.S. residents, by field of study: Years of doctorate1970–93



All doctorates

By sex



Total time-to-degree, by field

Registered time-to-degree, by field

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Skill improvement training among currently employed workers

- **In 1991, one out of three full-time workers and one out of six part-time workers received training to improve their current job skills in the last 12 months.**
- **In both 1983 and 1991, women were as likely as men to have received training while on their current job.**
- **The proportion of workers who had ever received skill improvement training on their current job increased between 1983 and 1991.**
- **The likelihood of workers receiving skill improvement training is related to their education, occupation, and age. In 1991, college graduates, workers in executive, professional and technical occupations, and those aged 35–44 were more likely to have received training on their current job than other workers.**

In the face of changing technologies, work methods, and markets, firms and workers may benefit from education or training that upgrades or reorients worker skills. The proportion of workers receiving skill improvement training on their current job is an indication of the extent to which firms invest in the re-education of the employed workforce. Differences in the proportions among types of workers who receive training are an indication of those for whom employers find it valuable to invest in training.

Percentage of workers aged 16 and over who received skill improvement training while on their current job, by worker characteristics: 1983 and 1991

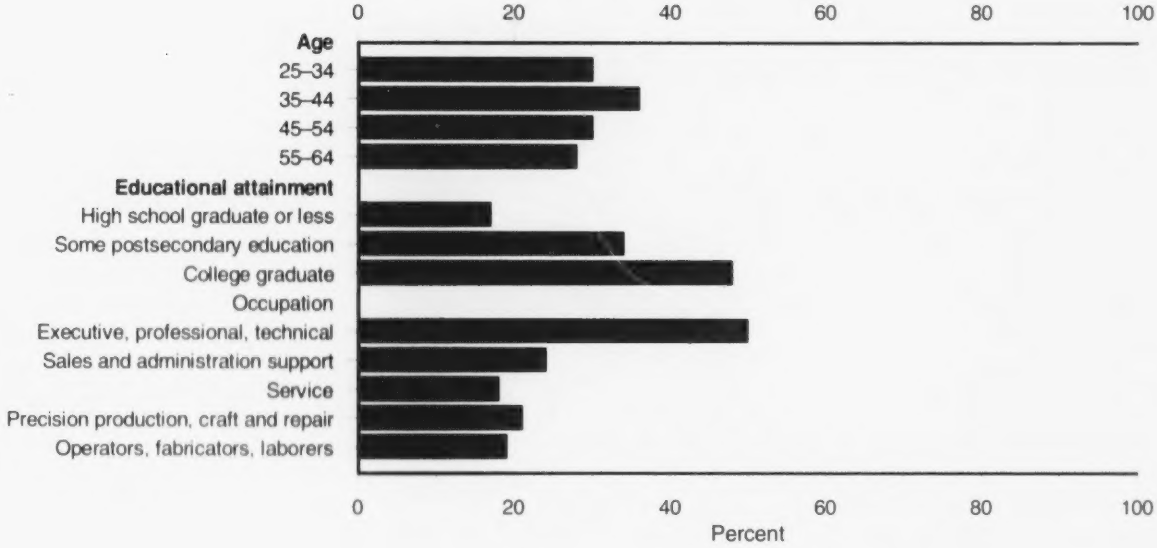
Characteristic	In the last 12 months	At any time while on current job	
	1991	1983	1991
Total	**30**	**35**	**41**
Sex			
Male	29	35	40
Female	30	34	41
Work status			
Full-time	33	—	—
Part-time	16	—	—
Age			
20–24	20	28	31
25–34	30	39	41
35–44	36	41	48
45–54	30	37	46
55–64	28	31	37
65 and over	19	19	25
Educational attainment			
High school graduate or less	17	26	29
Some postsecondary education	34	41	46
College graduate	48	54	61
Occupation			
Executive, professional, technical	50	54	60
Sales and administrative support	24	32	38
Service	18	23	28
Farming, forestry, fishing	7	16	21
Precision production, craft and repair	21	35	38
Operators, fabricators, laborers	19	19	22

— Not available.

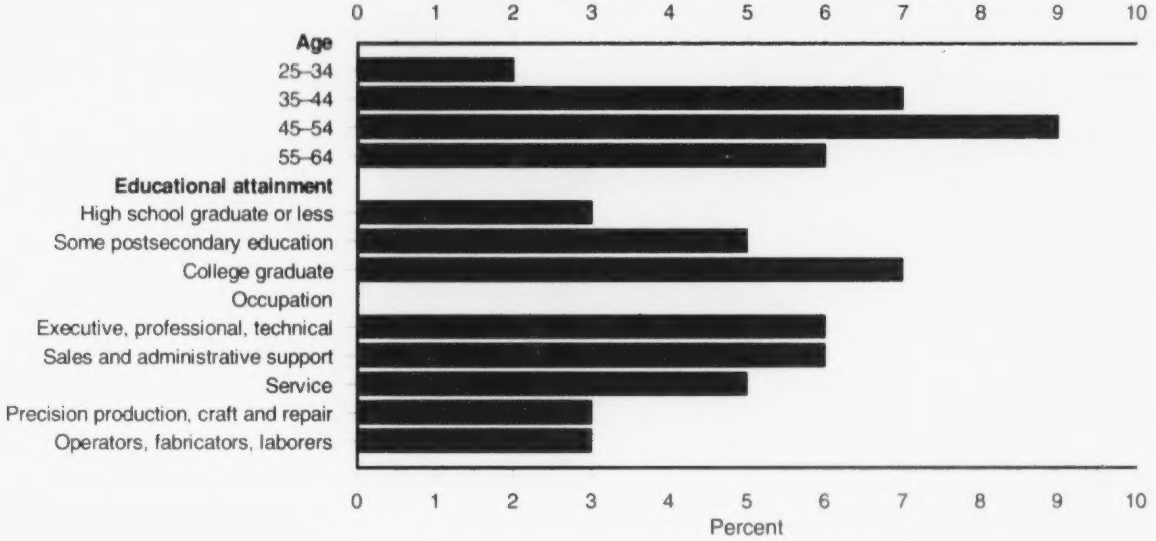
SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *How Workers Get Their Training: A 1991 Update*, Bulletin 2407, August 1992. U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991.

Workers who received skill improvement training while on their current job, by worker characteristics

Percent receiving training in last 12 months: 1991



Percentage point increase between 1983 and 1991 in percent who received training at any time on their current job



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *How Workers Get Their Training: A 1991 Update*, Bulletin 2407, August 1992. U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991.

Achievement, Attainment, and Curriculum

Indicators of what students have learned in school are perhaps the most important measures of the outcomes of education. Performance on examinations is one measure of what has been learned. However, examinations do not measure the wide array of skills and experiences that formal education provides. Educational attainment (e.g., finishing high school or college) is an indirect measure of how much subject matter students may have learned, as well as how much students potentially have gained in learning civic responsibilities, social skills, work ethics, and life skills. Furthermore, information about courses taken in high school and fields of study in college is an additional indirect indicator of the content of students' knowledge.

Achievement

The National Assessment of Educational Progress (NAEP) has assessed students' knowledge in reading, writing, science, mathematics, and other subjects for more than 20 years. Average reading proficiency among 9-year-olds was about the same in 1992 as in 1971; among 13- and 17-year-olds, it was slightly higher in 1992. Average science proficiency among 9-year-olds was higher in 1992 than in 1970; among 13-year-olds, it was the same in 1992 as in 1970; and among 17-year-olds, it was lower. Average writing proficiency of 11th-graders was about the same in 1992 as in 1984; however, 4th- and 8th-graders showed marked progress between 1990 and 1992 (*Indicators 13, 14,* and *16*).

Mathematics achievement is assessed through NAEP for 9-, 13-, and 17-year-olds, through the SAT for college-bound high school seniors, and through the GRE for college graduates intending to continue their education. NAEP shows that average mathematics proficiency among 9- and 13-year-olds was slightly higher in 1992 than in 1973 and that among 17-year-olds, it was about the same (*Indicator 15*). Average scores on the mathematics section of the SAT showed similar patterns of change. For example, SAT scores fell somewhat during the 1970s, but rose during the early 1980 and early 1990s. Unlike NAEP, not all of the decline in SAT mathematics scores during the 1970s has been recouped. However, participation in the SAT exam has increased significantly; in 1993, 41 percent of high school seniors took the SAT, up from 32 percent in 1976 (table 20-1). The percentage of minority test-takers has doubled during this same time period—rising from 15 to 30 percent. GRE test-takers as a percentage of college graduates have also increased from 29 percent in 1980 to 35 percent in 1993. GRE quantitative scores have increased 45 points since 1973, mainly due to a sharp rise in scores during the 1980s (*Indicator 21*).

Although overall scores have not changed much over the last two decades, NAEP shows that the large gap in achievement between whites and minorities has narrowed somewhat. Blacks have improved relative to whites in reading, mathematics, and science. For example, in 1971, average reading proficiency among 17-year-old blacks was well below that of both 17-year-old and 13-year-old whites (52 and 22 scale points, respectively); although the gap was still large in 1992, the reading proficiency of 17-year-old blacks was closer (36 points) to that of 17-year-old whites, and about the same as that of 13-year-old whites (*Indicator 13*). In general, improvement in average reading proficiency among Hispanics relative to whites was not as widespread as it was among blacks. The same trend is evident in SAT scores between 1976 and 1994. As the verbal scores of whites decreased 8 points, those of blacks increased by 20 points, and those of Hispanics remained relatively stable.

International comparisons. Recent international comparisons of student achievement are available in basic reading literacy, mathematics, and science. Generally, U.S. students compare favorably to their counterparts in other large industrialized countries in reading, but unfavorably in mathematics and science (*Indicators 17, 18,* and *19*). However, differences among countries do not seem so large when they are compared to the variation within countries. Although the United States is a culturally diverse country with respect to language, it is less diverse than some of the other large industrialized countries. A smaller percentage of 9-year-old students in the United States speak a language at home that is different from the one spoken at school than their counterparts in the former West Germany, France, Italy, or Canada (*Indicator 17*).

Adult Literacy. In 1992, the literacy of adults aged 16 and older was assessed in three areas: prose, document, and quantitative. Approximately 20 percent of the adults in the United States performed at the lowest proficiency level. Scores of whites averaged 67 to 75 points higher than those of Hispanics and 49 to 63 points higher than those of blacks in each of the three areas. In addition, older Americans had lower literacy scores than younger ones, and adults with more education had higher literacy scores than adults with less education (*Indicator 20* and tables 20-1 and 20-3, *Condition of Education 1994*).

Attainment

High school completion. In 1994, 86 percent of all 25- to 29-year-olds had a high school diploma or an equivalency certificate, up from 78 percent in 1971. However, the completion rate varied among racial/ethnic groups. In 1994, 91 percent of whites had a high school diploma or the equivalent, compared to 84 percent of blacks and 60 percent of Hispanics. Blacks showed the most improvement, as the percentage of blacks earning a high school diploma or equivalency certificate rose 25 percentage points between 1971 and 1994, compared to 9 and 12 percentage points for whites and Hispanics, respectively (*Indicator 22*). In terms of high school attainment, the United States compares favorably to other large industrialized countries. A similar or higher percentage of 25- to 64-year-olds in the United States have completed high school than 25- to 64-year-olds in many other countries. With respect to young adults, however, several other nations approach or surpass U.S. secondary education completion rates (*Indicator 23*).

College attainment. After high school, many people stop (or delay) further formal education. In 1994, of 25- to 29-year-olds who had completed high school, 61 percent had completed at least some college, and 27 percent had earned a bachelor's degree or more (*Indicator 22*). In the United States, a larger portion of young adults have earned college degrees compared to their counterparts in most other industrialized countries *(Indicator 23).*

Curriculum

The courses students take in high school and college are an indirect indication of the content of students' knowledge. In order to graduate, students in public high schools in 1990–91 were required, on average, to take almost 4 years of English, 2.5 years of math, and 2 years of science. As district spending increased, students were more likely to be required to complete 13 or more years of coursework in English, math, science, and social studies (except in the highest spending districts). Students in districts with very low median household incomes were more likely to be required to meet or exceed the core requirements in English, mathematics and science recommended in 1983 by the commission that issued *A Nation At Risk* than students in districts with moderate or high median household incomes (*Indicator 24*). A greater percentage of 1992 than 1982 high school graduates earned the number of units in the core courses—4 units in English and 3 each in science, social studies, and mathematics—recommended in *A Nation at Risk* (*Indicator 25*). In 1992, 47 percent of high school graduates had earned at least this number of credits compared to 13 percent in 1982. A higher percentage of 1992 high school graduates took mathematics and science courses (both overall and in specific subject areas) than 1982 graduates, particularly in geometry, algebra I, biology, and chemistry (*Indicator 26*). Members of the high school class of 1992 also took more foreign language courses than their counterparts who graduated in 1982 (*Indicator 26, Condition of Education 1994*).

Business is the most popular major in college—24 percent of all bachelor's degree recipients in 1990 majored in business *(Indicator 27, Condition of Education 1994).* However, the percentage of students receiving an associate's degree in business decreased between 1987 and 1990, while the percentage earning an associate's degree in arts and sciences increased *(Indicator 29, Condition of Education 1994).* At the graduate level, males were still twice as likely as females to earn degrees in business, although the gap has declined significantly since the early 1970s *(Indicator 27).* Regardless of the degree earned, at least 60 percent of undergraduate students take courses in the arts, English literature, psychology, sociology/anthropology, history, physical science, and mathematics, reflecting a wide diversity of studies in college *(Indicator 28, Condition of Education 1994).*

Trends in the reading proficiency of 9-, 13-, and 17-year-olds

> *A student's ability to read is essential to the educational process. If students fall behind in reading proficiency, they may find it difficult to benefit from other aspects of the curriculum. In the future, poor readers may also find it difficult to participate effectively in an economy requiring increasingly sophisticated job skills.*

- **Overall, reading proficiency for 9-year-olds improved between 1971 and 1980, then declined between 1980 and 1992, essentially returning to the 1971 level. At age 13, little change occurred from year to year, but average performance was higher in 1992 than in 1971. Scores for 17-year-olds increased between 1971 and 1984, then remained stable through 1992.**
- **Females continue to outscore males in all age groups.**
- **Although black students have made no progress since 1988, the average reading proficiency of black students was higher in 1992 than in 1971. Scores for Hispanic students increased between 1975 and 1992 for 17-year-olds. The gap between white students and their black and Hispanic counterparts decreased for blacks at all three age levels and for Hispanic 17-year-olds.**
- **There is evidence that reading proficiency increases more between ages 9 and 13 than between ages 13 and 17. For example, in 1992, there was an average proficiency difference of 50 scale points between 9- and 13-year-olds, and 30 scale points between 13- and 17-year-olds. This pattern holds for both genders and all racial/ethnic groups.**

Average reading proficiency (scale score), by sex and age: Selected years 1971–92

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	208	[1]255	[1]285	[1]201	250	[1]279	214	[1]261	291
1975	210	[1]256	[1]286	204	250	280	216	262	[1]291
1980	[1,2]215	258	[1]286	[2]210	[2]254	282	[1,2]220	263	[1]289
1984	[2]211	257	[2]289	[2]208	[2]253	[2]284	214	262	294
1988	[2]212	258	[2]290	[2]208	252	[2]286	216	263	294
1990	209	257	[2]290	204	250	284	214	263	[2]296
1992	210	[2]260	[2]290	[2]206	254	[2]284	215	[2]265	296

Average reading proficiency (scale score), by race/ethnicity and age: Selected years 1971–92

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	[1]214	[1]261	[1]291	[1]170	[1]222	[1]239	—	—	—
1975	217	[1]262	[1]293	[2]181	[1]226	[1]241	183	232	[1]252
1980	[1,2]221	[2]264	[1]293	[2]188	[2]233	[1]243	190	237	261
1984	[2]218	[1]263	[2]295	[2]186	[2]236	[2]264	187	240	[2]268
1988	218	[1]261	295	[2]189	[2]243	[1,2]274	[2]194	240	[2]271
1990	217	[1]262	[2]297	[2]182	[2]242	[2]267	189	238	[2]275
1992	[2]218	[2]266	[2]297	[2]184	[2]238	[2]261	192	239	[2]271

— Not available.

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1971 for all except Hispanics. Statistically significant difference from 1975 for Hispanics.

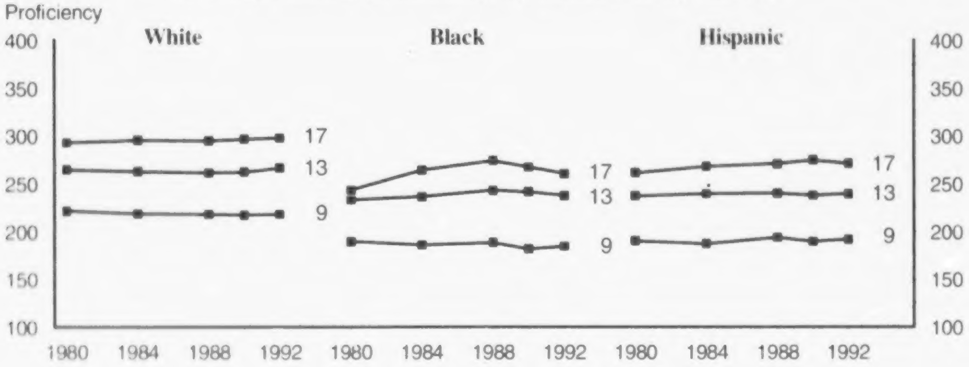
NOTE: The r**eading proficiency scale has a range from 0 to 500**: (See supplemental table 13-1 for further explanations of levels.)

Level 150:	Simple, discrete reading tasks	Level 300:	Understands complicated information
Level 200:	Partial skills and understanding	Level 350:	Learns from speciclized reading materials
Level 250:	Interrelates ideas and makes generalizations		

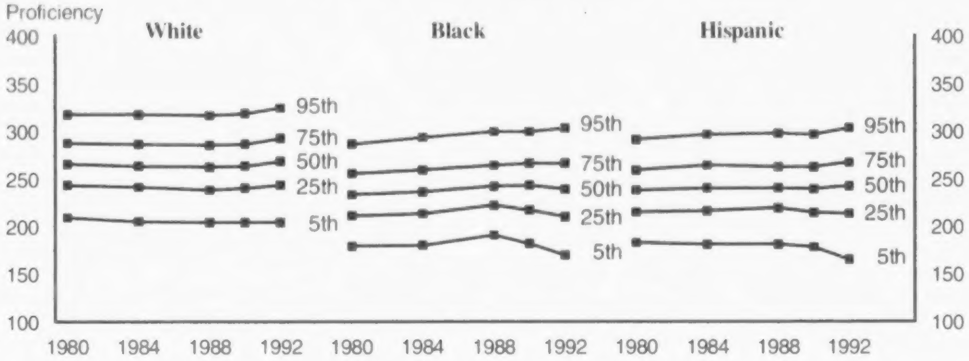
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Average reading proficiency (scale score): 1980–92

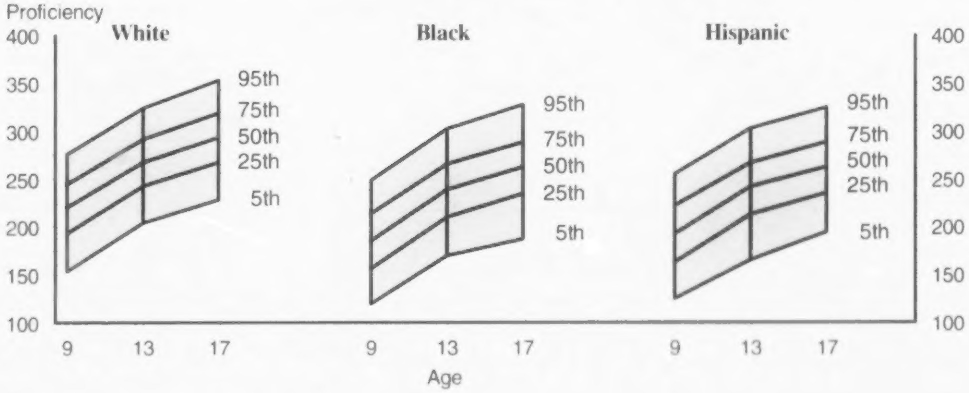
Average reading proficiency, by race/ethnicity and age



Percentile distribution of reading proficiency for 13-year-olds, by race/ethnicity



Percentile distribution of reading proficiency, by race/ethnicity and age for 1992



NOTE: The reading proficiency scale has a range from 0 to 500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progess, *Trends In Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; and Writing, 1984 to 1992*, 1994.

Trends in writing proficiency in grades 4, 8, and 11

- **Average writing proficiency remained relatively stable for fourth-grade students between 1984 and 1990, then rose between 1990 and 1992. Eighth-grade writing scale scores increased 17 scale points in 1992 after a decline between 1984 and 1990. Eleventh-grade scores have remained relatively unchanged since 1984.**
- **Females have outscored males at all levels since 1984.**
- **Scores for white eighth-grade students decreased between 1984 and 1990, and then rose dramatically in 1992. Hispanic and black eighth-grade students also showed strong improvements between 1990 and 1992.**

Effective writing skills are important in all stages of life from early education to future employment. In the business world, as well as in school, students often must convey complex ideas and information in a clear, succinct manner. Inadequate writing skills, therefore, could inhibit achievement across the curriculum and in future careers.

- **In 1992, 87 percent of 11th-graders could write focused, clear responses (Level 250); 36 percent were generally able to write more complete responses (Level 300); and only 2 percent provided effective, coherent responses (Level 350) (see supplemental table 14-2).**
- **Scores at the 5th percentile rose between 1990 and 1992 for all age groups, while scores at the 95th percentile decreased for 11th-graders and remained the same for 4th-graders. This shift caused a decrease in the variability of scores for 4th- and 11th-graders. Eighth-grade scores increased at the upper percentile levels, causing the entire distribution to shift upward (see supplemental table 14-3).**

Average writing proficiency (scale score), by grade and sex: Selected years 1984–92

	Total			Male			Female		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	204	[1]267	290	200	258	281	[1]208	[1]276	299
1988	206	[1]264	291	199	[1]254	282	213	[1]274	299
1990	[1]202	[1,2]257	287	195	[1,2]246	276	[1]209	[1,2]268	298
1992	207	[2]274	287	198	264	279	[2]216	[2]285	296

Average writing proficiency (scale score), by grade and race/ethnicity: Selected years 1984–92

	White			Black			Hispanic		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	211	[1]272	297	182	247	270	188	[1]247	259
1988	215	[1]269	296	173	246	[1]275	190	[1]250	274
1990	211	[1,2]262	293	171	[1]239	268	184	[1]246	[2]277
1992	217	[2]279	294	175	258	263	189	[2]265	274

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1984.

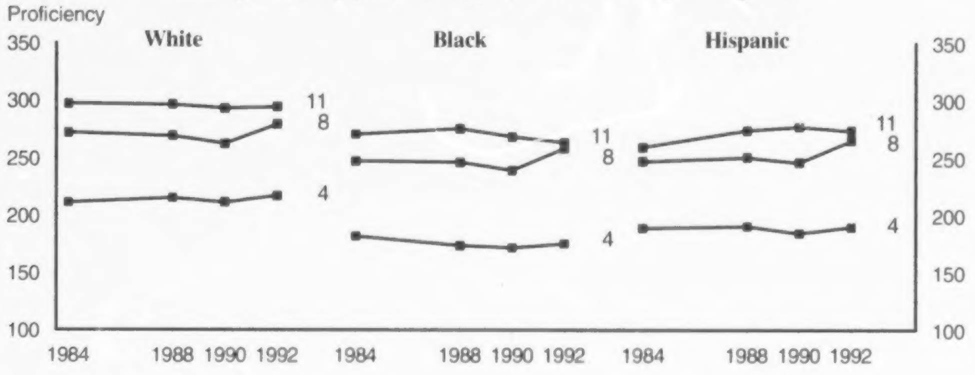
NOTE: **The writing proficiency scale has a range from 0 to 500**. (See supplemental table 14-1 for detailed explanations of levels.)

Level 150: Disjointed, unclear writing
Level 200: Incomplete, vague writing
Level 250: Beginning, focused, clear writing
Level 300: Complete, sufficient writing
Level 350: Effective, coherent writing

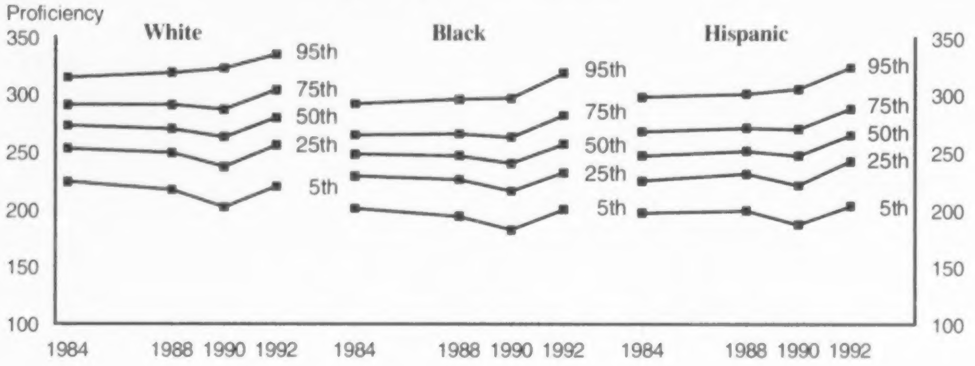
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Average writing proficiency (scale score): 1984-92

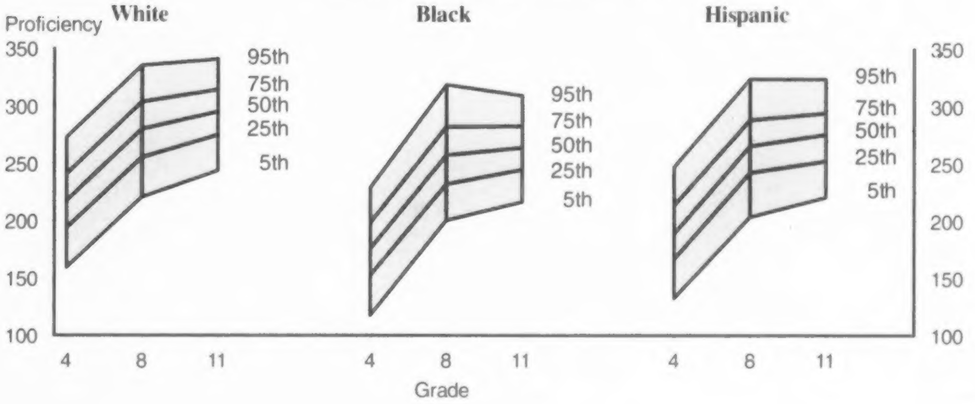
Average writing proficiency, by race/ethnicity and grade



Percentile distribution of writing proficiency in grade 8, by race/ethnicity



Percentile distribution of writing proficiency, by race/ethnicity and grade for 1992



NOTE: The writing proficiency scale has a range from 0 to 500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends In Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; and Writing, 1984 to 1992*, 1994.

Trends in the mathematics proficiency of 9-, 13-, and 17-year-olds

> *Proficiency in mathematics is an important outcome of education. In an increasingly technological world, the mathematics skills of the nation's workers may be a crucial component of economic competitiveness. In addition, knowledge of mathematics is critical for success in science, computing, and a number of other related fields of study.*

- **Average mathematics proficiency improved between 1978 and 1992 for all age groups, with the largest improvements occurring among 9- and 13-year-olds.**
- **White, black, and Hispanic 9-year-olds showed large improvements in average mathematics proficiency between 1982 and 1992, after a rather flat trend occurred between 1973 and 1982.**
- **Although a large gap in mathematics proficiency exists for all age groups between whites and their black and Hispanic peers, at ages 13 and 17, white scores increased at a slower rate than black and Hispanic scores causing this gap to decrease over the last 20 years.**
- **Increases in performance between 1978 and 1992 varied across proficiency levels. The percentage of 17-year-olds scoring at or above Level 250 increased from 92 to 97 percent; those scoring at or above Level 300 increased from 52 to 59 percent; but those scoring at or above Level 350 stayed at 7 percent (see supplemental table 15-2).**
- **There is much variation in the mathematics proficiency scores of students. For example, in 1992, scores for 9-year-old whites varied by more than 100 scale points between the 5th percentile and the 95th percentile. In addition, whites had higher scores at the 95th percentile at age 9 than at the 50th percentile at age 13 (see supplemental table 15-3).**

Average mathematics proficiency (scale score), by sex and age: Selected years 1973–92

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	[1]219	[1]266	304	[1]218	[1]265	309	[1]220	[1]267	301
1978	[1]219	[1]264	[1]300	[1]217	[1]264	[1,2]304	[1]221	[1]265	[1]297
1982	[1]219	[1]269	[1,2]298	[1]217	[1]269	[1,2]302	[1]222	[1]268	[1,2]296
1986	[1]222	[1]269	[1]302	[1,2]222	[1,2]270	[1,2]305	[1]222	268	[1]299
1990	[2]230	[2]270	305	[2]229	[2]271	306	[2]230	270	303
1992	[2]230	[2]273	307	[2]231	[2]274	309	[2]228	[2]272	304

Average mathematics proficiency (scale score), by race/ethnicity and age: Selected years 1973–92

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	[1]225	[1]274	310	[1]190	[1]228	[1]270	[1]202	[1]239	[1]277
1978	[1]224	[1]272	[1,2]306	[1]192	[1]230	[1]268	[1]203	[1]238	[1]276
1982	[1]224	[1]274	[1,2]304	[1]195	[1,2]240	[1]272	[1]204	[1,2]252	[1]277
1986	[1]227	[1]274	[1]308	[2]202	[2]249	[2]279	205	[2]254	283
1990	[2]235	276	310	[2]208	[2]249	[2]288	[2]214	[2]255	284
1992	[2]235	[2]279	312	[2]208	[2]250	[2]286	[2]212	[2]259	[2]292

[1] Statistically significant difference from 1992.
[2] Statistically significant difference from 1973.

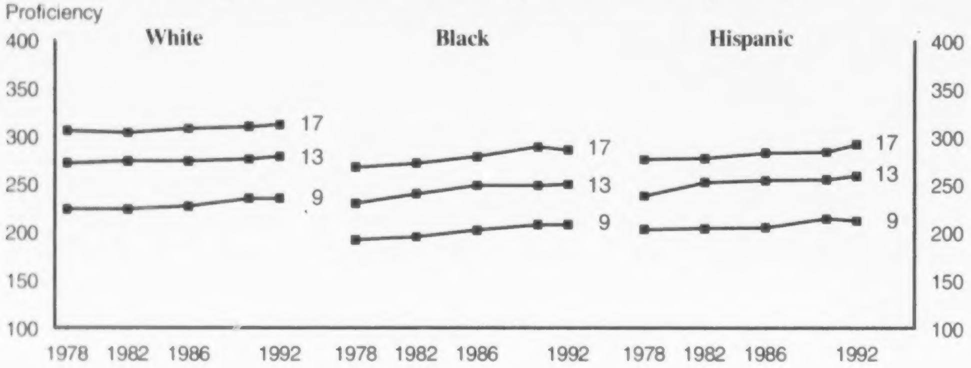
NOTE: **The mathematics proficiency scale has a range of 0 to 500**. (See supplemental table 15-1 for detailed explanations of levels.)

Level 150:	Simple arithmetic facts	Level 300:	Moderately complex procedures and reasoning
Level 200:	Beginning skills and understandings	Level 350:	Multi-step problem solving and algebra

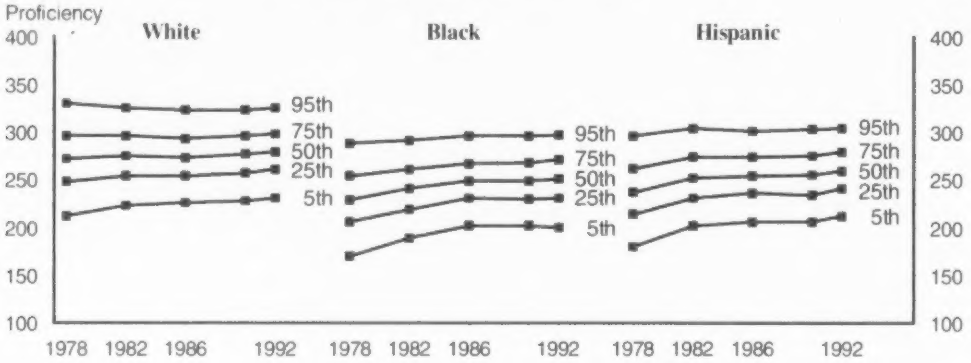
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; and Writing, 1984 to 1992*, 1994.

Average mathematics proficiency (scale score): 1978-92

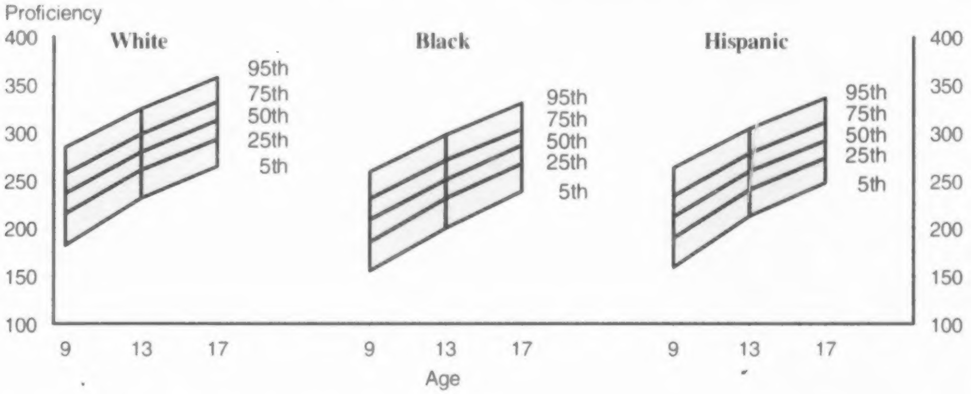
Average mathematics proficiency, by race/ethnicity and age



Percentile distribution of mathematics proficiency for 13-year-olds, by race/ethnicity



Percentile distribution of mathematics proficiency, by race/ethnicity and age for 1992



NOTE: The mathematics proficiency scale has a range from 0 to 500.

SOURCE: U.S. Department of Education, National Center For Education Statistics, National Assessment of Educational Progess, *Trends In Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992, Mathematics; 1973 to 1992; Reading, 1971 to 1992; and Writing, 1984 to 1992*, 1994.

Trends in the science proficiency of 9-, 13-, and 17-year-olds

- **In 1992, average science achievement was higher at all three age levels than in 1982, the year before *A Nation at Risk* was published. In addition, the gap between male and female scores at ages 13 and 17 has decreased.**
- **In 1992, the average science proficiency of blacks and Hispanics remained well below that of whites. However, between 1977 and 1992, the proficiency gap decreased between whites and blacks at age 9 and between whites and Hispanics at age 13.**

Competence in science is an important outcome of education. The ability to apply scientific information, interpret data, and make inferences about scientific findings is required in a world that relies heavily on technological and scientific advances.

- **A higher percentage of 9-, 13-, and 17-year-olds demonstrated general science skills by reaching Levels 200 and 250 in 1992 than in 1982. In addition, more 17-year-olds reached Levels 300 and 350 in 1992, exhibiting detailed knowledge and analytical understanding of scientific principles and the ability to integrate specialized scientific information (see supplemental table 16-2).**
- **There is a great deal of variation in science proficiency scores within an age group. For example, the proficiency of white 9-year-olds varies by 120 scale points from the 5th percentile to the 95th percentile. By comparison, the difference in the proficiency of median white 9- and 17-year-olds is 66 scale points (see supplemental table 16-3).**

Average science proficiency (scale score), by sex and age: Selected years 1970–92

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	[1] 225	255	[1] 305	[1] 228	257	[1] 314	223	253	[1] 297
1973	[1,2] 220	[1,2] 250	[1] 296	[1,2] 223	[1,2] 252	[2] 304	[1] 218	[1,2] 247	[2] 288
1977	[1,2] 220	[1,2] 247	[1,2] 290	[1,2] 222	[1,2] 251	[2] 297	[1,2] 218	[1,2] 244	[1,2] 282
1982	[1] 221	[1,2] 250	[1,2] 283	[1,2] 221	256	[1,2] 292	[1] 221	[1,2] 245	[1,2] 275
1986	224	[1] 251	[1,2] 288	[1] 227	256	[2] 295	[1] 221	[1,2] 247	[1,2] 282
1990	229	255	[2] 290	[1] 230	258	[2] 296	227	[1] 252	[2] 285
1992	[2] 231	258	[2] 294	[2] 235	260	[2] 299	227	256	[2] 289

Average science proficiency (scale score), by race/ethnicity and age: Selected years 1970–92

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	236	[1] 263	[1] 312	[1] 179	215	258	—	—	—
1973	[1,2] 231	[1,2] 259	[1] 304	[1] 177	[1,2] 205	[2] 250	—	—	—
1977	[1,2] 230	[1,2] 256	[1,2] 298	[1] 175	[1] 208	[1,2] 240	[1] 192	[1] 213	262
1982	[1,2] 229	[1,2] 257	[1,2] 293	[1] 187	217	[1,2] 235	[1] 189	[1,2] 226	[1,2] 249
1986	[1,2] 232	[1] 259	[1,2] 298	[2] 196	222	253	199	[1,2] 226	259
1990	238	264	[2] 301	[2] 196	[2] 226	253	[2] 206	[2] 232	262
1992	239	[2] 267	[2] 304	[2] 200	224	256	[2] 205	[2] 238	270

— Not available.

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1970 for all except Hispanics. Statistically significant difference from 1977 for Hispanics.

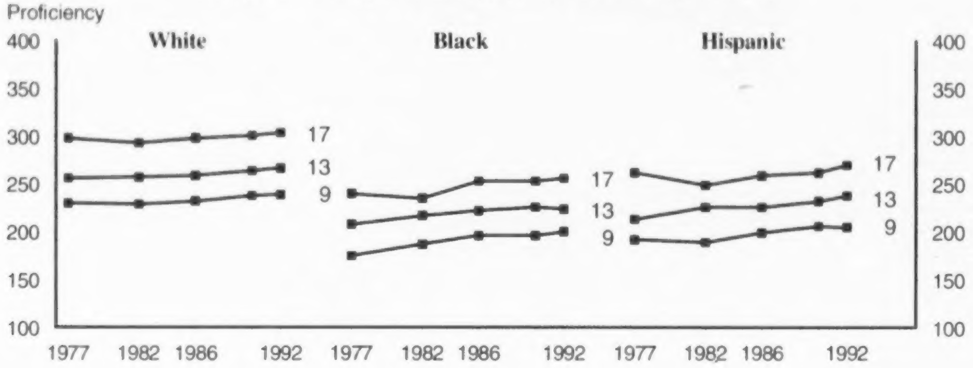
NOTE: **The science proficiency scale has a range from 0 to 500.** (See supplemental table 16-1 for detailed explanations of levels.)

Level 150:	Knows everyday science facts
Level 200:	Understands simple scientific principles
Level 250:	Applies general scientific information
Level 300:	Analyzes scientific procedures and data
Level 350:	Integrates specialized scientific information

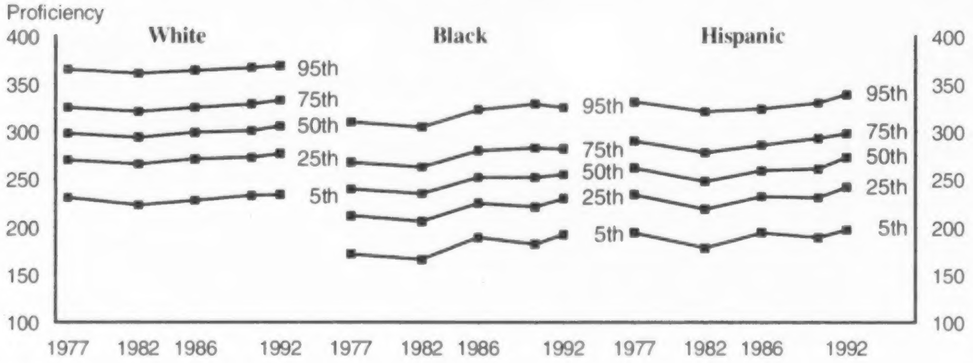
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; and Writing, 1984 to 1992,* 1994.

Average science proficiency (scale score): 1977–92

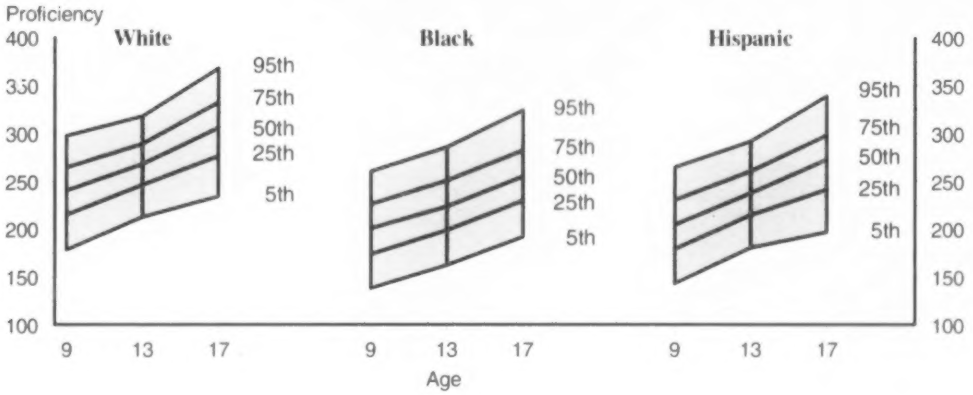
Average science proficiency, by race/ethnicity and age



Percentile distribution of science proficiency for 17-year-olds, by race/ethnicity



Percentile distribution of science proficiency, by race/ethnicity and age for 1992



NOTE: The science proficiency scale has a range from 0 to 500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends In Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; and Writing, 1984 to 1992*, 1994.

International comparisons of reading literacy

> *The ability to read is a minimum requirement to participate productively in a global economy and to fulfill basic civic responsibilities. Comprehending and effectively using written language are crucial for both future learning and the development of basic job skills.*

- **In an international assessment of basic reading literacy, 9-year-olds from the United States performed better on average on the narrative domain than students from other large countries.**
- **At age 14, students in the United States scored higher on the expository domain on average than students of similar ages in West Germany and Spain.**
- **There is far greater variation in the basic reading literacy of students within each country than there are differences in averages among countries. For example, among 9-year-olds, the difference between the 10th and the 90th percentile on the narrative domain was 235 scale points in the United States, compared to a difference of 62 scale points between the United States and West Germany (see supplemental table 17-2).**
- **Children whose home language is different from the one spoken at school showed lower literacy levels in most countries, including the United States, at both ages 9 and 14.**

Average reading literacy scale scores, by age and country: School year 1991–92

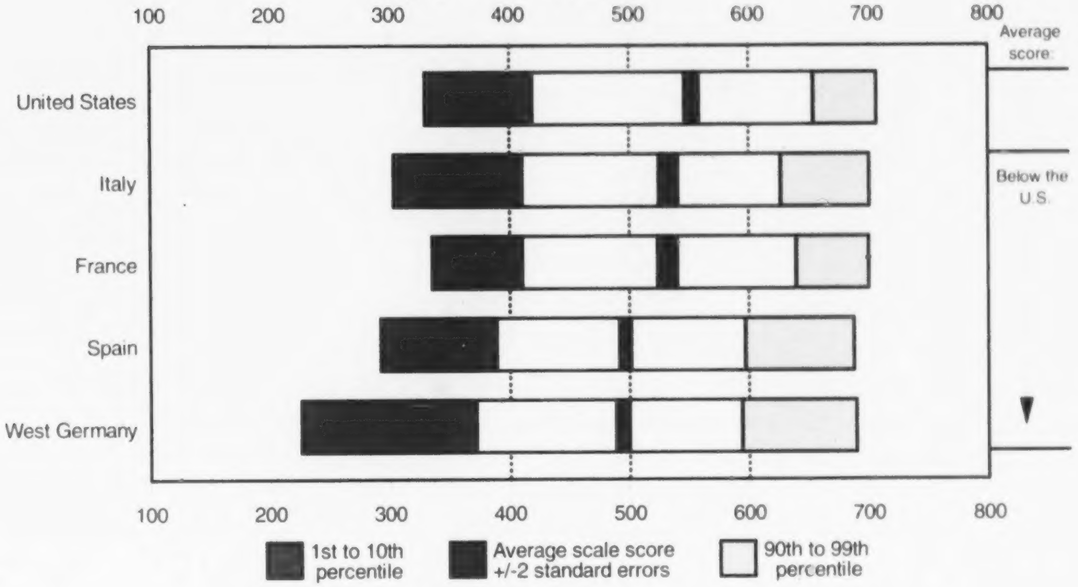
							Non-school language spoken at home		School language spoken at home	
	Average overall score			Average domain scale score			Percentage	Average	Percentage	Average
Larger countries	Total	Male	Female	Narrative	Expository	Documents	of students	score	of students	score
						Age 9				
United States	547	543	552	553	538	550	4	520	96	549
France	531	530	533	532	533	527	9	491	91	536
Italy	529	525	537	533	538	517	27	513	73	537
Spain	504	500	508	497	505	509	13	499	87	505
West Germany	503	501	508	491	497	520	11	461	92	509
						Age 14				
France	549	553	549	556	546	544	4	516	96	552
United States	535	530	543	539	539	528	4	478	96	539
West Germany	522	522	526	514	521	532	8	455	92	530
Italy	515	511	520	520	524	501	26	488	74	525
Spain	490	488	492	500	495	475	11	481	89	491

NOTE: In the Study of Reading Literacy, 32 countries assessed the reading achievement of students in the grades where most 9- and 14-year-olds were enrolled. The countries above are the larger countries. The above scores were scaled using the Rasch procedure. The domain scores for each age group were scaled to a mean of 500 and a standard deviation of 100. The average overall score is the mean of the domain scale scores. Some student groups were excluded by the participating countries, such as those in private schools, schools serving disabled children, or schools where the language of instruction is different from the primary national language. See supplemental tables 17-1 through 17-4 for details on excluded populations and performance information on other countries.

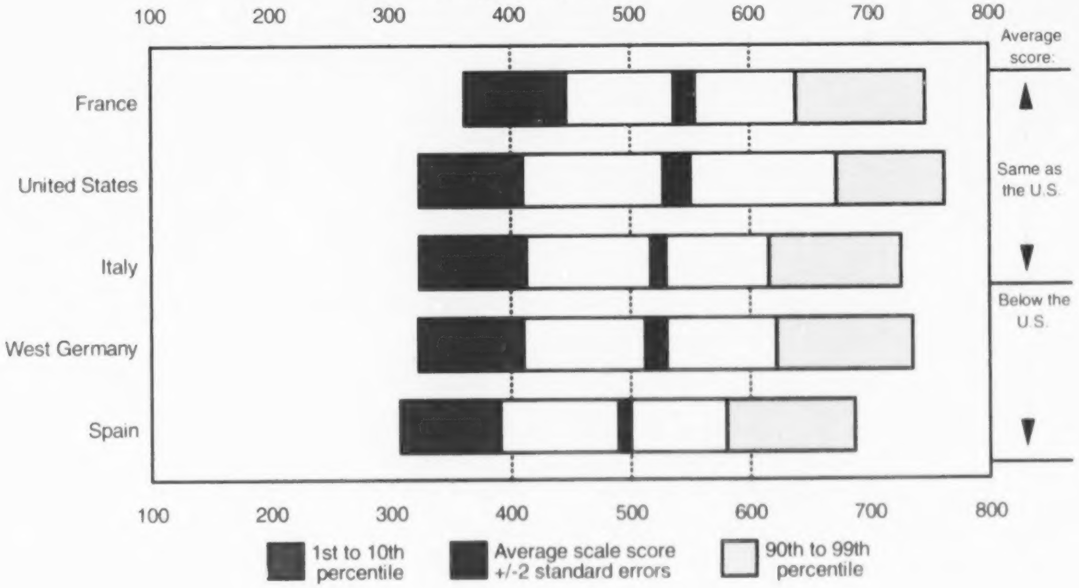
SOURCE: International Association for the Evaluation of Educational Achievement, Study of Reading Literacy, *How in the World Do Students Read?*, 1992.

Distribution of scale scores on reading literacy assessment, by country: School year 1991–92

Age 9, Narrative domain



Age 14, Expository domain



NOTE: The vertical lines at ability score 500 mark the average score for each age group for all participating countries. The standard deviation is 100.

SOURCE: International Association for the Evaluation of Educational Achievement, Study of Reading Literacy, *How in the World Do Students Read?*, 1992.

International comparisons of mathematics performance

- **In the second International Assessment of Educational Progress (IAEP), 9-year-old students from the United States scored lower on average in mathematics performance than 9-year-olds from all other large countries.**

- **Thirteen-year-olds from the United States scored lower on average than students of the same age in other large countries, except Spain.**

- **Average mathematics proficiency among 13-year-old students in the United States was 48 scale points below their South Korean counterparts. This is more than half of the difference between 9- and 13-year-olds in the United States, suggesting that United States students at age 13 may be performing at levels similar to Korean 9-year-olds rather than to their Korean age mates.**

- **There is far greater variation in the mathematics proficiency of students within each country than there are differences in averages among countries. For example, among 13-year-olds the difference between the 10th and 90th percentile was 124 scale points in the United States, compared to a difference in average proficiency between the United States and Taiwan of 51 scale points.**

> *The technical skills of a nation's workers are a crucial component of its economic competitiveness. The youth of today will be tomorrow's workers and will be competing in the global marketplace. They will depend on the mathematics learned in this decade to succeed in the complex business and technological environments of the future.*

Proficiency scores on mathematics assessment, by age and country: 1991

	Average proficiency score			Percentile scores						
Larger countries[1]	Total	Male	Female	1st	5th	10th	Median	90th	95th	99th
Age 9										
South Korea	473	480	465	334	383	407	475	534	550	586
Taiwan	454	455	453	304	360	384	457	521	539	571
Soviet Union[2]	447	448	446	310	349	374	450	514	532	579
Spain[3]	432	432	432	287	330	353	437	499	518	551
Canada[4]	430	430	431	296	337	363	435	490	506	537
United States	420	422	419	278	305	333	427	492	513	549
Age 13										
Taiwan	545	546	544	368	424	454	550	631	659	694
South Korea	542	546	537	390	445	470	545	609	629	665
Soviet Union[2]	533	533	532	413	458	477	536	584	596	629
France	519	523	515	404	442	460	521	574	588	616
Canada[5]	513	515	512	400	443	462	515	564	580	608
Spain[3]	495	498	492	390	429	446	496	542	556	577
United States	494	494	494	366	407	430	495	554	574	616

[1] In the second International Assessment of Educational Progress (IAEP), 14 countries assessed the mathematics achievement of 9-year-olds, and 20 countries assessed the mathematics achievement of 13-year-olds. The countries above are the larger countries that assessed virtually all age-eligible children, except as noted. See supplemental tables 18-1 through 18-4 for performance information on other countries.

[2] Fourteen out of 15 republics in the former Soviet Union; Russian-speaking schools.

[3] Regions except Cataluña; Spanish-speaking schools.

[4] Four out of 10 provinces; see supplemental table 18-1 for the scores of 9-year-olds in individual Canadian provinces.

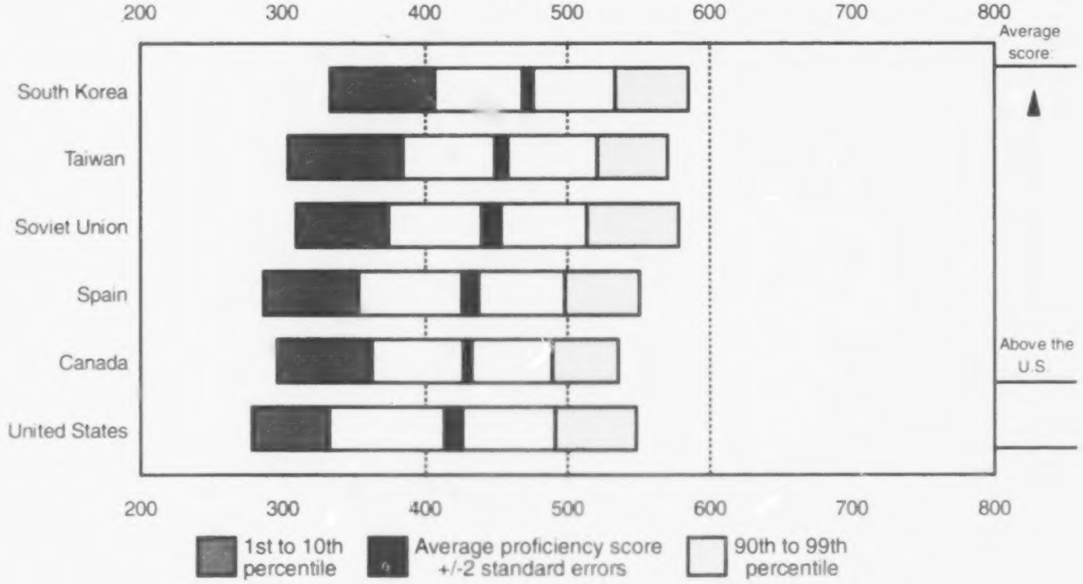
[5] Nine out of 10 provinces; see supplemental table 18-2 for the scores of 13-year-olds in individual Canadian provinces.

NOTE: Proficiency scores range from 0 to 1,000. The mean proficiency score for all participating populations, 9- and 13-year-olds together, is 500. The standard deviation is 100. See the supplemental note to *Indicator 18* for a discussion of proficiency scaling.

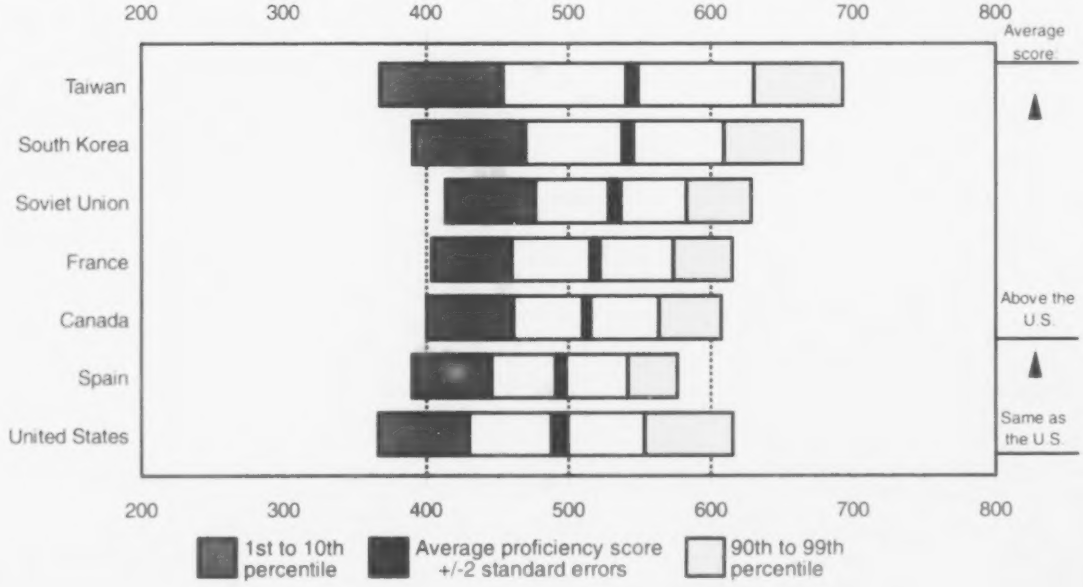
SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Distribution of proficiency scores on mathematics assessment, by age and country: 1991

Age 9



Age 13



NOTE: The scale for proficiency scores ranges from 0 to1,000. The mean proficiency score for all participating populations, 9- and 13-year-olds together, is 500. The standard deviation is 100.

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

International comparisons of science performance

- **In the second International Assessment of Educational Progress (IAEP), 9-year-old students from South Korea scored higher on average in science performance than 9-year-olds from the United States. Students of the same age from Spain scored lower on average.**
- **Thirteen-year-olds from South Korea, Taiwan, the former Soviet Union, and Canada scored higher on average than U.S. students of the same age.**
- **The difference in science proficiency between 9- and 13-year-olds in the United States (75 scale points) was less than the proficiency difference in other large countries (ranging from 95 to 110 scale points).**
- **Among 9-year-olds, boys performed better than girls in South Korea, Taiwan, and Spain. At age 13, this gender difference held across all large participating countries except Taiwan.**

> *The scientific and technological skills of a nation's workers are a crucial component of its economic competitiveness. The youth of today will be tomorrow's workers and will be competing in the global marketplace. They will depend on the science learned in this decade to succeed in the complex business and technological environments of the future.*

Proficiency scores on science assessment, by age and country: 1991

	Average proficiency score			Percentile scores						
Larger countries	Total	Male	Female	1st	5th	10th	Median	90th	95th	99th
				Age 9						
South Korea	460	474	446	303	357	383	460	541	563	609
Taiwan	456	466	445	254	321	359	458	553	576	627
United States	446	451	441	235	292	328	453	543	567	605
Canada[2]	437	439	434	257	316	346	443	517	538	582
Soviet Union[3]	434	441	428	284	328	356	433	515	547	588
Spain[4]	430	439	421	250	305	334	435	522	541	567
				Age 13						
South Korea	571	580	559	395	457	490	575	649	670	710
Taiwan	563	567	560	339	420	463	572	655	673	715
Soviet Union[3]	541	546	535	383	438	465	545	612	629	661
Canada[5]	533	539	527	384	434	460	534	606	628	670
France	532	540	524	370	417	442	534	611	639	677
Spain[4]	525	531	519	380	428	453	524	596	617	663
United States	521	530	513	334	410	436	523	601	627	665

[1] In the second International Assessment of Educational Progress (IAEP), 14 countries assessed the science achievement of 9-year-olds, and 20 countries assessed the science achievement of 13-year-olds. The countries above are the larger countries that assessed virtually all age-eligible children, except as noted. See supplemental tables 19-1 through 19-4 for performance information on other countries.

[2] Four out of 10 provinces; see supplemental table 19-1 for the scores of 9-year-olds in individual Canadian provinces.

[3] Fourteen out of 15 republics in the former Soviet Union; Russian-speaking schools.

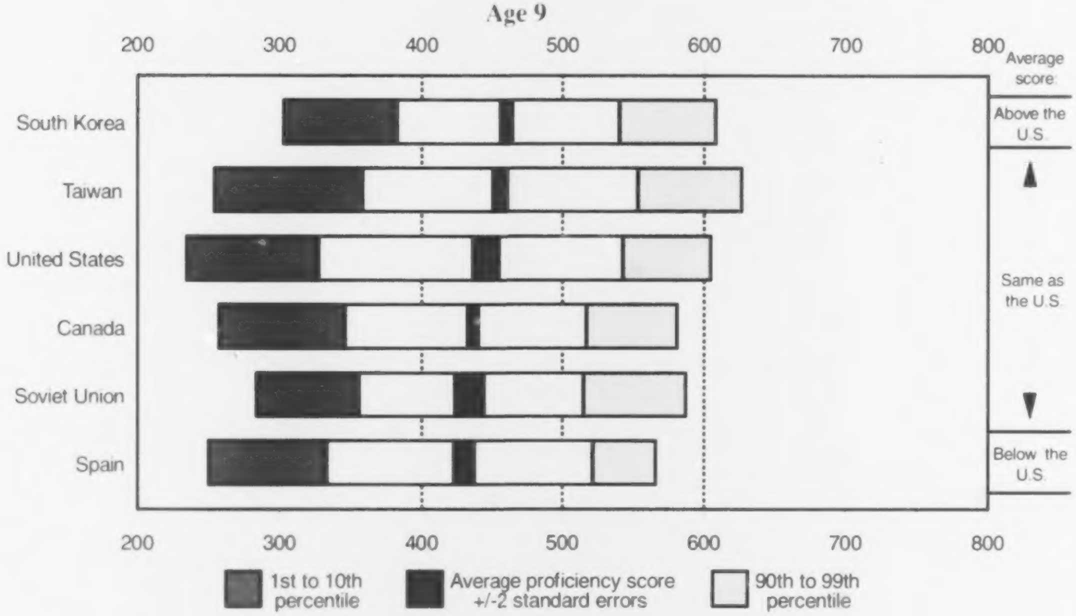
[4] Regions except Cataluña; Spanish-speaking schools.

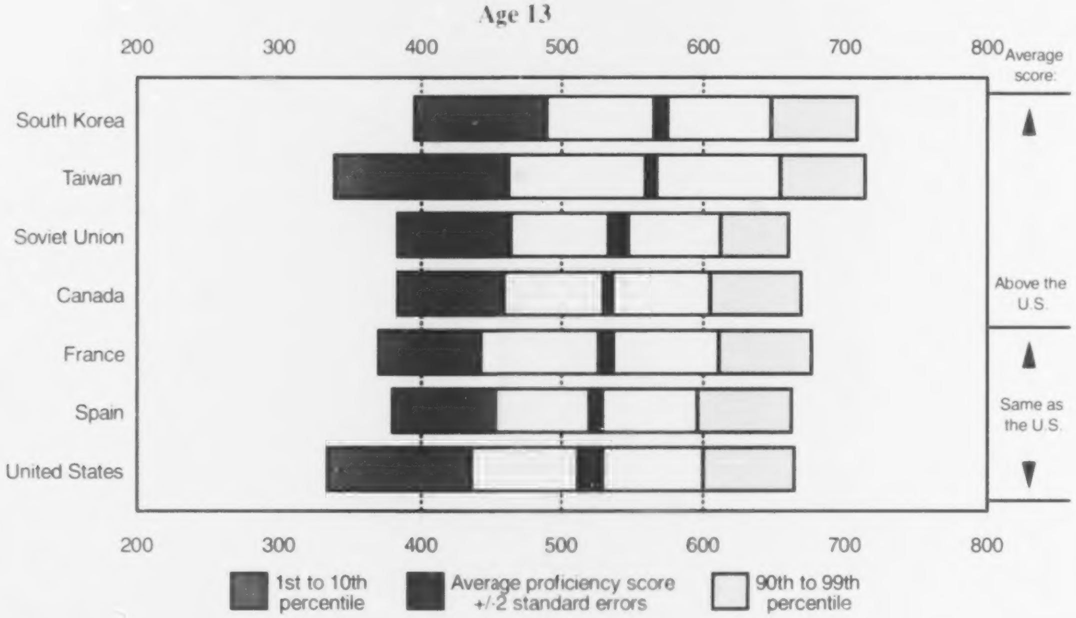
[5] Nine out of 10 provinces; see supplemental table 19-2 for the scores of 13-year-olds in individual Canadian provinces.

NOTE: Proficiency scores range from 0 to 1,000. The mean proficiency score for all participating populations, 9- and 13-year-olds together, is 500. The standard deviation is 100. See the supplemental note to *Indicator 18* for a discussion of proficiency scaling.

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Distribution of proficiency scores on science assessment, by age and country: 1991





NOTE: The scale for proficiency scores ranges from 0 to 1,000. The mean proficiency score for all participating populations, 9- and 13-year-olds together, is 500. The standard deviation is 100.

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Scholastic Aptitude Test (SAT) scores

- **Average total SAT scores remained relatively unchanged between 1993 and 1994. However, the performance of male test-takers dropped by 3 points in verbal and 1 point in mathematics, while the scores of female test-takers rose by 1 point in verbal and 3 points in mathematics, slightly narrowing the gap between the sexes.**

- **The number of SAT test-takers as a percentage of high school graduates remained at about 42 percent during the 1992–94 period, up from 35 percent in 1984. The proportion of minority SAT test-takers more than doubled between 1976 and 1994, rising from 15 to 31 percent (see supplemental table 20-1).**

The Scholastic Aptitude Test (SAT) is the test taken most frequently by college-bound students. It is designed to predict success in the freshman year of college, and to track the performance of groups of students who intend to enter college across time. When interpreting these scores the reader should be aware that the proportion of high school graduates who take the exam changes over time.

- **Since 1976, the mean scores of black test-takers have risen 20 points on the verbal section and 34 points on the mathematics section, while the mean scores of whites have fallen 8 points on the verbal section and have risen 2 points on the mathematics section (see supplemental table 20-2).**

- **In 1994, students from families with the lowest parental education and income levels received the lowest scores overall, and scores increased with higher levels of parental education and income (see supplemental table 20-4).**

Mean SAT scores of college-bound seniors, by sex: 1972–94

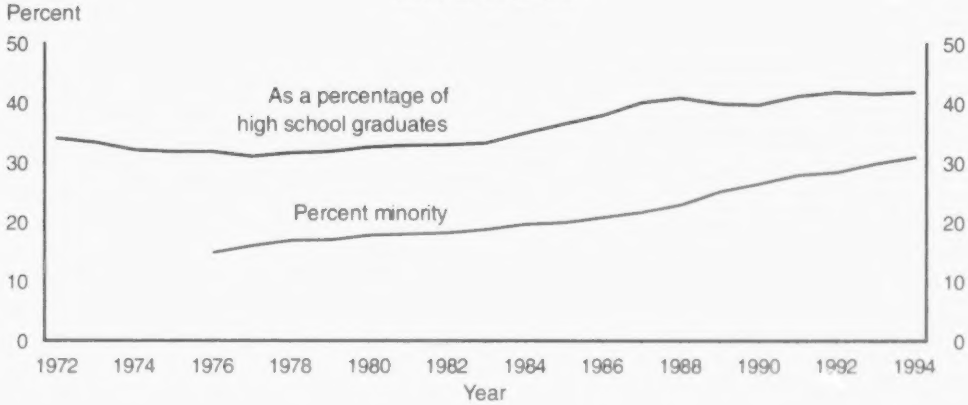
	Verbal			Mathematics			Combined		
Year	Total	Male	Female	Total	Male	Female	Total	Male	Female
1972	453	454	452	484	505	461	937	959	913
1973	445	446	443	481	502	460	926	948	903
1974	444	447	442	480	501	459	924	948	901
1975	434	437	431	472	495	449	906	932	880
1976	431	433	430	472	497	446	903	930	876
1977	429	431	427	470	497	445	899	928	872
1978	429	433	425	468	494	444	897	927	869
1979	427	431	423	467	493	443	894	924	866
1980	424	428	420	466	491	443	890	919	863
1981	424	430	418	466	492	443	890	922	861
1982	426	431	421	467	493	443	893	924	864
1983	425	430	420	468	493	445	893	923	865
1984	426	433	420	471	495	449	897	928	869
1985	431	437	425	475	499	452	906	936	877
1986	431	437	426	475	501	451	906	938	877
1987	430	435	425	476	500	453	906	935	878
1988	428	435	422	476	498	455	904	933	877
1989	427	434	421	476	500	454	903	934	875
1990	424	429	419	476	499	455	900	928	874
1991	422	426	418	474	497	453	896	923	871
1992	423	428	419	476	499	456	899	927	875
1993	424	428	420	478	502	457	902	930	877
1994	423	425	421	479	501	460	902	926	881

NOTE: The term "college-bound seniors" refers to those students from each high school graduating class who participate in the College Board Admission Testing Program. This population does not include all high school seniors, nor all first-year college students, as approximately one-third of high school graduates participate in the American College Testing Program. See the supplemental note to *Indicator 20* for information on interpreting SAT scores and for a discussion of the new version of the SAT.

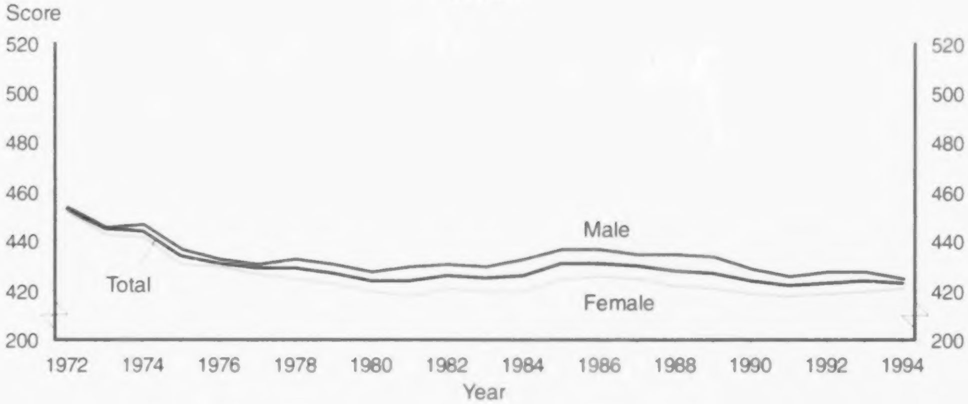
SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors, 1972–1994* (Copyright © 1994 by College Entrance Examination Board. All rights reserved).

SAT test-takers as a percentage of high school graduates and average SAT scores of college-bound seniors, by section and sex: 1972–94

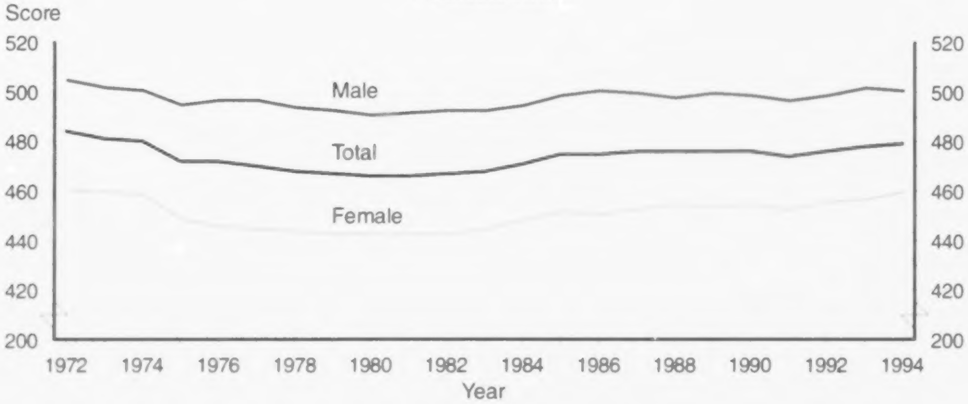
SAT test-takers



Verbal



Mathematics



SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors, 1972–1994* (Copyright © 1994 by College Entrance Examination Board. All rights reserved).

Graduate Record Examination (GRE) scores

- **The average total score on the GRE fell 70 points between 1965 and 1979, then increased 55 points between 1979 and 1990. Between 1990 and 1993, the scores decreased 10 points, reaching the lowest level since 1987.**
- **The average GRE verbal score has not yet recovered from the decline experienced throughout the 1960s, 70s, and early 80s; in 1993, it was 49 points below the average score in 1965. However, the quantitative score rose 45 points between 1973 and 1993 and was 24 points higher in 1993 than in 1965.**
- **The percentage of test-takers who are not U.S. citizens increased between 1979 and 1988. Non-U.S. citizens performed better on the quantitative component but worse on the verbal component than U.S. citizens (see supplemental table 21-3).**

> *The Graduate Record Examination (GRE), which is taken by less than one-third of college graduates, is a measure of the general learned abilities of prospective graduate students. Because there currently is no method to assess learning at the college level, the GRE, by default, is the best measure of general learned abilities of college graduates. However, the reader should be aware of the limitations of average GRE scores, including (1) the proportion of college graduates taking the exam changes over time; (2) an increasing proportion of foreign students are taking the exam; and (3) the average scores include some students who take the exam more than once.*

Graduate Record Examination (GRE) scores and the number of test-takers, by percentage of bachelor's degrees awarded and citizenship: Selected academic years ending 1965–93

	GRE test-takers			GRE scores		
Academic year ending	Number	As percent of bachelor's degrees	Percent who are U.S. citizens	Total[2]	Verbal	Quantitative
1965	93,792	18.7	—	1,063	530	533
1967	151,134	27.0	—	1,047	519	528
1969	206,113	28.3	—	1,039	515	524
1971	293,600	35.0	—	1,009	497	512
1973	290,104	31.5	—	1,009	497	512
1975	298,335	32.3	—	1,001	493	508
1976	299,292	32.3	92.5	1,002	492	510
1977	287,715	31.3	91.3	1,004	490	514
1978	286,383	31.1	89.1	1,002	484	518
1979	282,482	30.7	90.0	993	476	517
1980	272,281	29.3	89.3	996	474	522
1981	262,855	28.1	86.8	996	473	523
1982	256,381	26.9	86.7	1,002	469	533
1983	263,674	27.2	86.1	1,014	473	541
1984	265,221	27.2	85.9	1,016	475	541
1985	271,972	27.8	84.9	1,019	474	545
1986	279,428	28.3	84.5	1,027	475	552
1987	293,560	29.6	84.2	1,027	477	550
1988	303,703	30.5	79.5	1,040	483	557
1989	326,096	32.0	—	1,044	484	560
1990	344,572	[3]32.8	—	1,048	486	562
1991	379,882	[3]34.7	—	1,047	485	562
1992	411,528	[3]36.2	—	1,044	483	561
1993	400,246	[4]35.0	—	1,038	481	557

— Not available.

[1] Ratio of the number of GRE test-takers in a year to the number of bachelor's degrees awarded in that year expressed as a percentage.

[2] Scores for the analytical section of the GRE are not included.

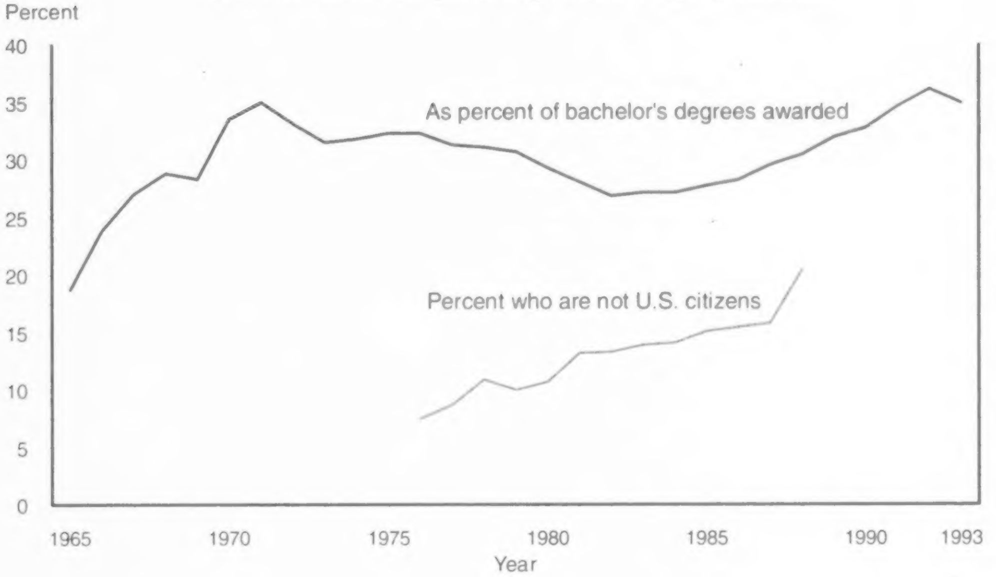
[3] Revised from previously published data.

[4] Estimated.

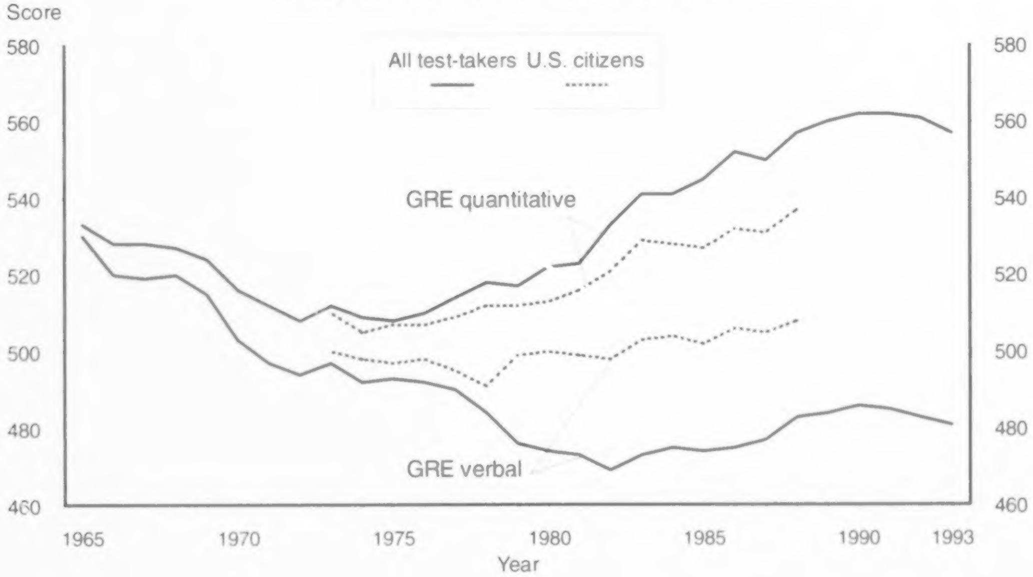
SOURCE: Educational Testing Service and U.S. Department of Education, National Center for Education Statistics, IPEDS/HEGIS surveys of degrees conferred, various years.

Graduate Record Examination (GRE) scores and number of test-takers as a percentage of bachelor's degrees awarded and citizenship: Academic years ending 1965–93

GRE test-takers and percentage who are not U.S. citizens



GRE scores of all test-takers and U.S. citizens



NOTE: GRE verbal and quantitative scores each range from 200 to 800. Total GRE scores range from 400 to 1,600.

SOURCE: Educational Testing Service and U.S. Department of Education, National Center for Education Statistics, IPEDS/HEGIS surveys of degrees conferred, various years.

Educational attainment

- **Educational attainment rates of 25- to 29-year-olds increased between 1971 and 1994. The percentage of students completing high school rose 8 percentage points; the percentage of high school graduates completing at least some college rose 17 percentage points; and the percentage of high school graduates completing 4 or more years of college rose 5 percentage points.**

- **Between 1971 and 1994, the percentage of 25- to 29-year-old high school graduates completing 4 or more years of college rose 9 percentage points for females and 1 percentage point for males, eliminating the differences between males and females (see supplemental table 22-3).**

Completing 4 years of college is an important educational accomplishment that will yield many benefits to those who achieve it. It represents the end result of both starting college and persistent enrollment. Some students stop out, and others drop out, but the vast majority of those who will ever complete 4 years of college do so by their late 20s.

- **While fewer black 25- to 29-year-olds had completed high school than their white counterparts in 1994, the gap between the percentages of blacks and whites completing high school closed between 1971 and 1994 (decreasing from 23 to 7 percentage points). Also, 50 percent of black graduates had completed at least some college compared to 63 percent of white high school graduates, and a smaller percentage of black than white (16 compared to 30 percent, respectively) graduates had completed a bachelor's or higher degree.**

- **In 1994, fewer Hispanic 25- to 29-year-olds had completed high school than their white counterparts. Fifty-two percent of Hispanic graduates completed at least some college, and 13 percent completed a bachelor's or higher degree, compared to 63 and 30 percent, respectively, of their white counterparts. These gaps in educational attainment rates between Hispanics and whites have not closed between 1971 and 1994.**

Percentage of 25- to 29-year-olds who have completed high school and percentage of high school graduates who have completed 1 or more and 4 or more years of college, by race/ethnicity: Selected years March 1971–94

					High school graduates* completing:							
	High school graduates*				1 or more years of college				4 or more years of college			
March	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	77.7	81.7	58.8	48.3	43.6	44.9	30.9	30.6	22.0	23.1	11.5	10.5
1973	80.2	84.0	64.1	52.3	45.3	46.6	33.5	31.6	23.6	24.8	12.7	10.8
1975	83.1	86.6	71.1	53.1	50.1	51.2	38.7	41.1	26.3	27.5	14.7	16.6
1977	85.4	88.6	74.5	58.0	53.2	54.8	41.7	41.1	28.1	29.8	16.9	11.5
1979	85.6	89.2	74.7	57.1	54.1	55.7	41.7	44.0	27.0	28.6	16.6	12.9
1981	86.3	89.8	77.6	59.8	50.1	51.2	42.5	39.6	24.7	26.3	14.9	12.5
1983	86.0	89.3	79.5	58.4	50.6	51.6	41.6	42.9	26.2	27.4	16.2	17.8
1985	86.2	89.5	80.5	61.0	50.8	51.8	42.7	44.2	25.7	27.3	14.4	18.2
1987	86.0	89.4	83.5	59.8	50.7	51.4	43.0	44.6	25.6	27.6	13.8	14.5
1989	85.5	89.3	82.3	61.0	51.3	52.8	42.1	44.3	27.3	29.5	15.4	16.5
1991	85.4	89.8	81.8	56.7	53.1	54.9	43.2	42.2	27.2	29.7	13.4	16.3
	Diploma or equivalency certificate				Some college or more				Bachelor's degree or more			
1992	86.3	90.6	80.9	60.9	56.7	58.8	44.7	46.8	27.3	30.0	13.7	15.6
1993	86.7	91.2	82.7	60.9	58.9	61.0	48.4	48.8	27.3	29.8	16.1	13.6
1994	86.1	91.1	84.1	60.3	60.5	62.7	49.6	51.5	27.0	29.7	16.2	13.3

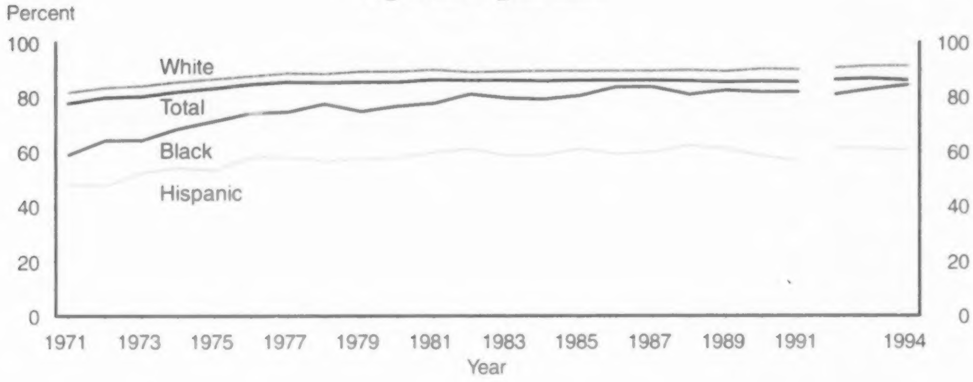
* 12 years of schooling completed for 1971–91.

NOTE: Beginning in 1992, the Current Population Survey changed the questions it used to obtain the educational attainment of respondents. See the supplemental note to this indicator for further discussion.

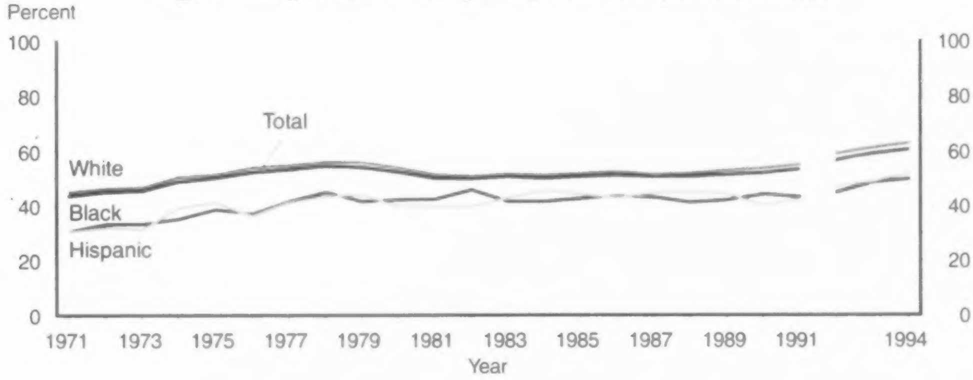
SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage of 25- to 29-year-olds completing high school and percentage of high school graduates who have completed 1 or more and 4 or more years of college, by race/ethnicity: March 1971–94

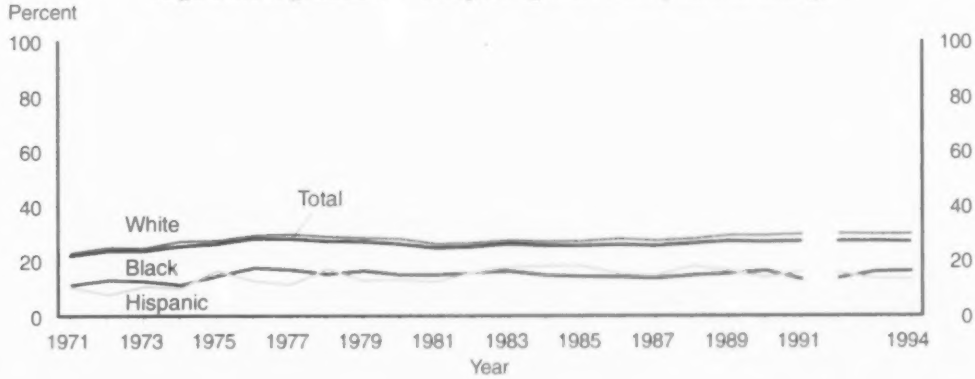
High school graduates*



High school graduates* completing 1 or more years of college



High school graduates* completing 4 or more years of college



* 12 years of schooling completed for 1971–91.

NOTE: Beginning in 1992, the Current Population Survey changed the questions it used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

International comparisons of educational attainment, by age

- **The educational attainment of the U.S. population is high compared to other large industrialized countries. A similar or higher percentage of 25- to 64-year-olds in the United States have completed secondary school and college than their counterparts in Japan, Germany, the United Kingdom, France, Italy, or Canada.**
- **In Japan, Germany, the United Kingdom, and Canada, 25- to 34-year-olds have completed secondary education at rates similar to their counterparts in the United States.**
- **Young men aged 25–34 in Japan were much more likely to have completed higher education than men of the same age group in the other large highly industrialized countries. Young men in the United States ranked second.**
- **Young women aged 25–34 in the United States were much more likely to have completed higher education than women or men of the same age in other large industrialized countries (with the exception of men in Japan).**

The percentage of the population completing secondary and higher education in the United States and other highly industrialized countries provides an indication of the skill level of the U.S. work force as compared to its economic competitors. Furthermore, contrasting the educational attainment of the general population to the attainment of younger age cohorts provides a means of comparing past and recent progress in the rate at which individuals complete high school or college.

Percentage of the population in large industrialized countries who have completed secondary and higher education, by age, sex, and country: 1992

	25–64 years old		25–34 years old					
	Both sexes		Both sexes		Male		Female	
Country	Secondary education	Higher education	Secondary education	Higher education	Secondary education	Higher education	Secondary education	Higher education
United States	84.0	23.6	86.5	23.2	85.9	23.3	87.0	23.1
Japan*	69.7	13.3	90.6	22.9	89.3	34.2	91.8	11.5
Germany	81.9	11.6	88.6	11.8	90.9	13.0	86.3	10.5
United Kingdom	68.1	10.7	80.9	12.5	82.2	14.3	79.6	10.7
France	52.2	10.2	67.1	12.3	68.4	12.4	65.7	12.1
Italy	28.4	6.4	42.4	6.8	41.5	6.8	43.3	6.7
Canada	71.3	15.0	80.8	16.1	79.0	16.0	82.5	16.2

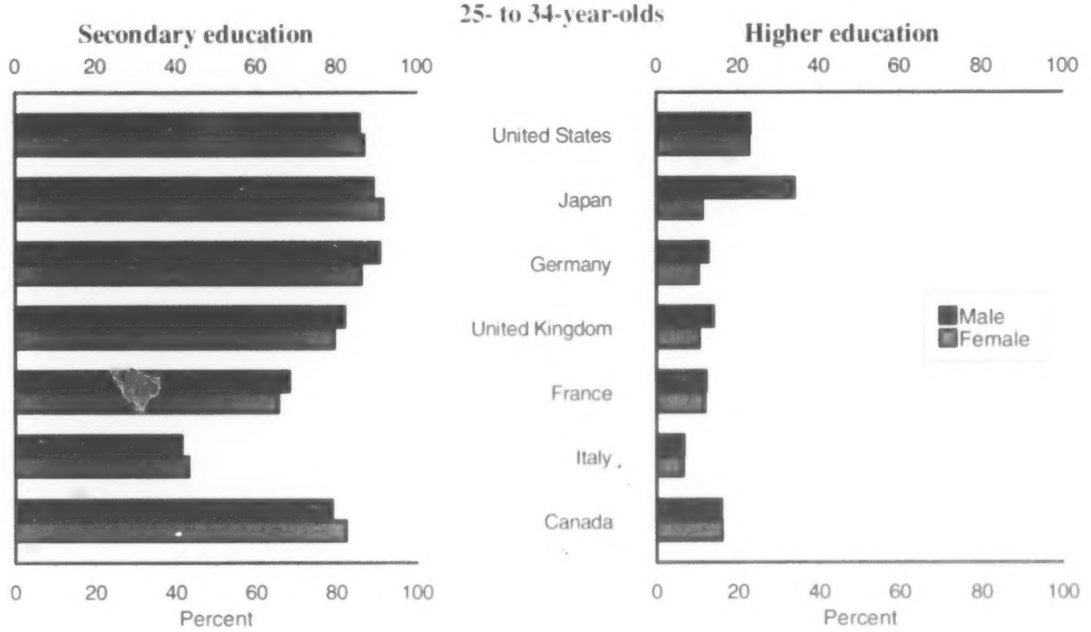
* 1989 data.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or more.

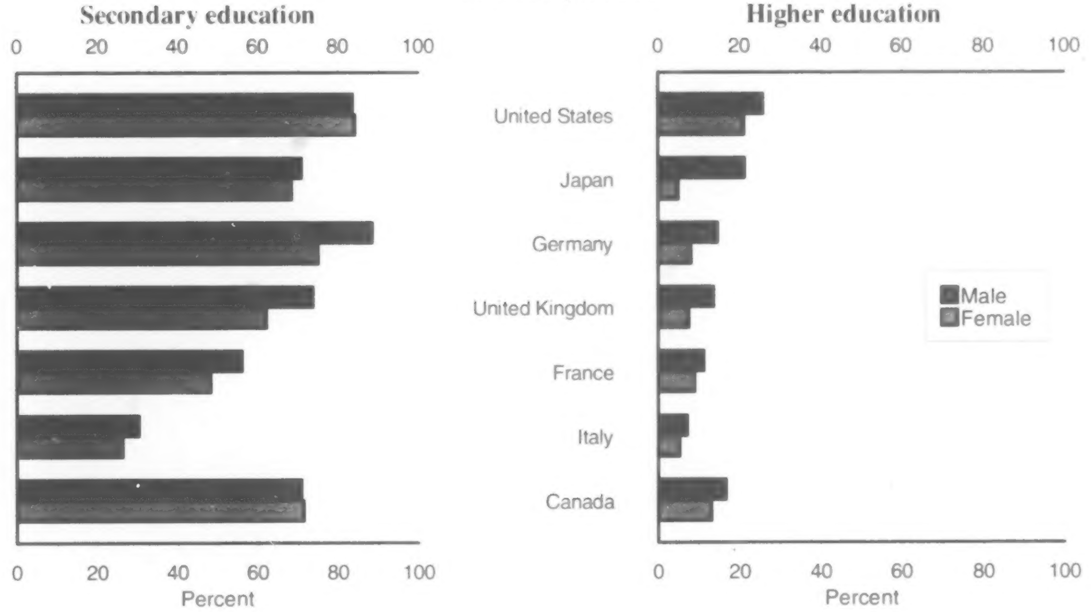
SOURCE: Organization for Economic Co-operation and Development, Indicators of Education's Systems, *Digest of International Education Statistics*, forthcoming.

Percentage of the population in large industrialized countries completing secondary and higher education, by age, sex, and country: 1992

25- to 34-year-olds



25- to 64-year-olds



NOTE: In the United States, completing secondary education is defined as graduating high school or earning a GED; completing higher education is defined as earning a bachelor's degree or more.

SOURCE: Organization for Economic Co-operation and Development, Indicators of Education's Systems, *Digest of International Education Statistics*, forthcoming.

High school graduation requirements

- **As district spending increased, students were more likely to be required to complete 13 or more years of coursework in English, mathematics, science, and social studies except for school districts spending the most per pupil.**
- **Students in districts with low median household income were more likely to be required to meet or exceed the NCEE recommendations in English, math, and science than students in districts with middle or high median household income.**
- **The median district requirements in the four core subjects ranged from 10 to 12 years of coursework in all but four states (see supplemental table 24-7).**

One of the national education goals states that students leaving grade 12 will have demonstrated competency in English, mathematics, science, history, and geography. The extent to which district high school graduation requirements include substantial coursework in these core subjects provides one indicator of the support educators are giving this goal. The 1983 recommendations by the National Commission on Excellence in Education (NCEE)—4 years of English, and 3 years each of mathematics, science, and social studies—provide a useful standard for comparison among districts.

Average years of study required in core subjects for public high school graduation and percentage of students in districts with graduation requirements at or above the NCEE's recommendations, by subject and selected district characteristics: 1990–91

	English		Mathematics		Science		Four core subjects*	
District characteristic	Years	Percent with 4 or more	Years	Percent with 3 or more	Years	Percent with 3 or more	Years	Percent with 13 or more
Total	**3.8**	**81.5**	**2.5**	**41.6**	**2.1**	**21.1**	**11.3**	**19.8**
Spending per pupil in school district								
Less than $3,500	3.8	86.2	2.5	44.0	2.1	17.7	11.1	14.9
$3,500 to $4,499	3.8	74.7	2.5	43.2	2.1	20.2	11.2	19.0
$4,500 to $5,499	3.9	81.4	2.6	50.5	2.2	33.2	11.7	32.0
$5,500 or more	3.9	89.6	2.3	27.5	2.1	14.4	11.5	13.8
Residents' median household income								
Lowest 25 percent	3.8	85.7	2.5	49.7	2.2	27.4	11.4	24.5
Middle 50 percent	3.9	82.8	2.4	40.7	2.1	21.7	11.3	20.3
Highest 25 percent	3.8	76.0	2.4	35.2	2.1	13.7	11.3	12.7
Residents who are high school graduates								
Less than 65.0 percent	3.9	93.8	2.5	47.3	2.2	22.8	11.3	21.0
65.0 to 84.9 percent	3.8	81.7	2.5	43.3	2.1	22.6	11.4	20.8
85.0 percent or more	3.8	71.6	2.3	30.2	2.1	14.3	11.1	13.3
Residents who are minority								
Less than 5.0 percent	3.8	73.3	2.4	31.5	2.1	20.4	11.2	18.0
5.0 to 19.9 percent	3.8	79.7	2.4	39.1	2.1	17.9	11.2	16.8
20.0 to 49.9 percent	3.9	84.7	2.6	54.6	2.2	28.5	11.6	25.8
50.0 percent or more	3.9	95.3	2.4	40.6	2.0	15.5	11.5	15.8
Households receiving public assistance								
Less than 5.0 percent	3.9	81.0	2.5	41.9	2.1	21.9	11.4	19.8
5.0 to 9.9 percent	3.8	79.3	2.5	43.5	2.2	21.1	11.3	19.4
10.0 percent or more	3.9	87.0	2.4	38.0	2.1	20.1	11.3	19.1
Urbanicity of district								
Central city	3.9	84.0	2.4	40.9	2.1	18.8	11.5	18.4
Suburban/other urban	3.8	79.6	2.5	41.6	2.1	21.8	11.3	20.5
Rural/small town	3.8	82.3	2.5	42.2	2.2	22.0	11.3	19.8

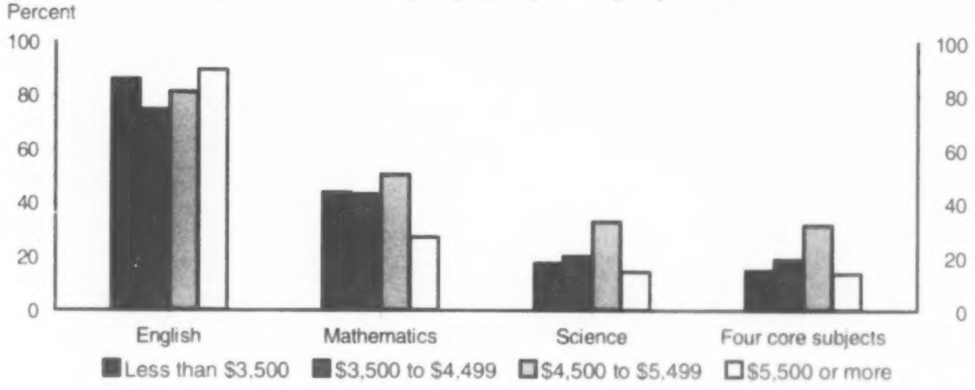
*The fourth core subject is social studies.

NOTE: Students' actual course-taking (see *Indicator 25*) may exceed their districts' requirements for graduation (this indicator).

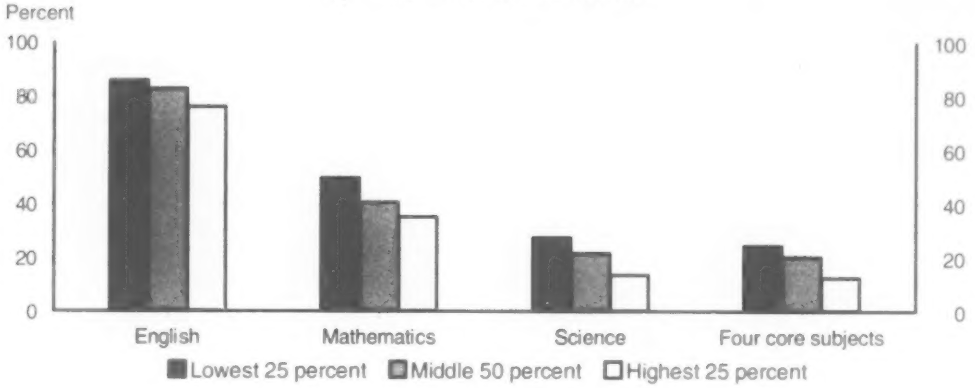
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Demand and Shortage Questionnaire); Common Core of Data, 1989–90; and 1990 Census School District Special Tabulation.

Percentage of students in school districts that met or exceeded the NCEE'S recommendations,* by subject and district characteristics: 1990–91

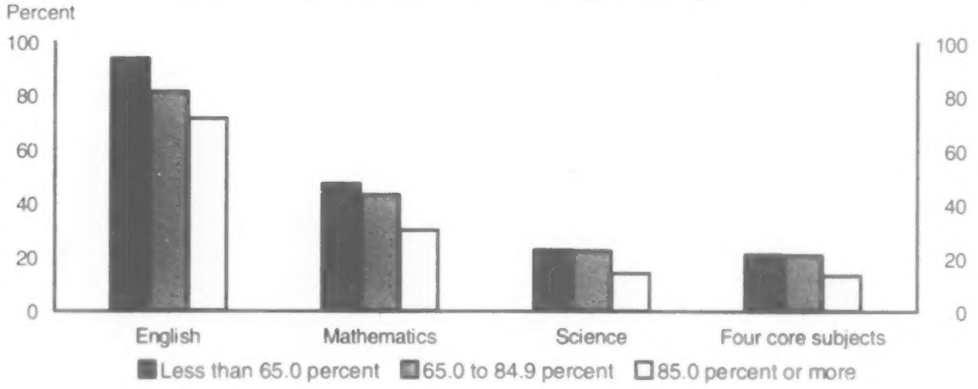
By level of district per-pupil operating expenditures



By median household income



By percentage of residents who are high school graduates



* The NCEE recommendations included 4 years of English and 3 years each of mathematics, science, and social studies.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Demand and Shortage Questionnaire); Common Core of Data, 1989–90; and 1990 Census School District Special Tabulation.

High school course taking in the core subject areas

- **Between 1982 and 1992, the percentage of high school graduates earning the recommended units in core courses* increased sharply, from 13 to 47 percent. This increase was broadly based, occurring for both sexes and all racial/ethnic groups.**
- **For private school graduates, the percentage earning the recommended units increased from 17 to 66 percent (49 percentage points), compared to an increase from 12 to 45 percent (33 percentage points) for public school graduates.**
- **Over the same period, the percentage of graduates completing the recommended credits in core courses increased more for students whose parents had only completed high school (about 36 percentage points) than for students whose parents had completed college (29 percentage points), effectively closing the gap between the two groups.**

In 1983, A Nation At Risk *claimed that our society had "lost sight of the basic purposes of schooling, and of the high expectations and disciplined effort needed to attain them." As a remedial step, the report recommended that all students seeking a diploma be required to enroll in the "New Basics," a core curriculum composed of 4 units of English; 3 units each of science, social studies, and mathematics; and 0.5 units of computer science.*

Percentage of high school graduates who earned the recommended units in core courses,* by selected student characteristics: 1982, 1987, 1990, and 1992

					Percentage point change			
Characteristic	1982	1987	1990	1992	1982–1987	1987–1990	1990–1992	1982–1992
Total	**12.7**	**28.6**	**39.9**	**46.8**	**15.9**	**11.3**	**6.9**	**34.1**
Sex								
Male	13.7	30.1	40.6	46.5	16.5	10.5	5.9	32.8
Female	11.8	27.2	39.2	47.2	15.4	12.0	8.0	35.4
Race/ethnicity								
White	13.8	29.7	40.6	48.5	15.9	10.9	7.9	34.7
Black	10.8	24.4	41.3	43.7	13.6	16.9	2.4	32.9
Hispanic	6.7	17.9	32.7	36.0	11.2	14.8	3.3	29.3
Asian/Pacific Islander	19.8	48.3	51.2	50.7	28.5	2.9	-0.5	30.9
American Indian/Alaskan Native	6.0	28.9	26.0	30.6	22.9	-2.9	4.6	24.6
Urbanicity								
Urban	12.9	—	—	50.8	—	—	—	37.9
Suburban	13.2	—	—	47.6	—	—	—	34.4
Rural	11.7	—	—	42.5	—	—	—	30.8
Control of school								
Public	11.5	27.1	38.2	44.8	15.6	11.1	6.6	33.3
Private	17.1	42.4	56.6	65.7	25.3	14.2	9.1	48.6
Parents' highest education level								
Didn't finish high school	10.0	—	—	45.3	—	—	—	35.3
High school graduate	10.7	—	—	47.2	—	—	—	36.5
Some college	14.8	—	—	45.7	—	—	—	30.9
College graduate	19.5	—	—	48.5	—	—	—	29.0

— Not available.

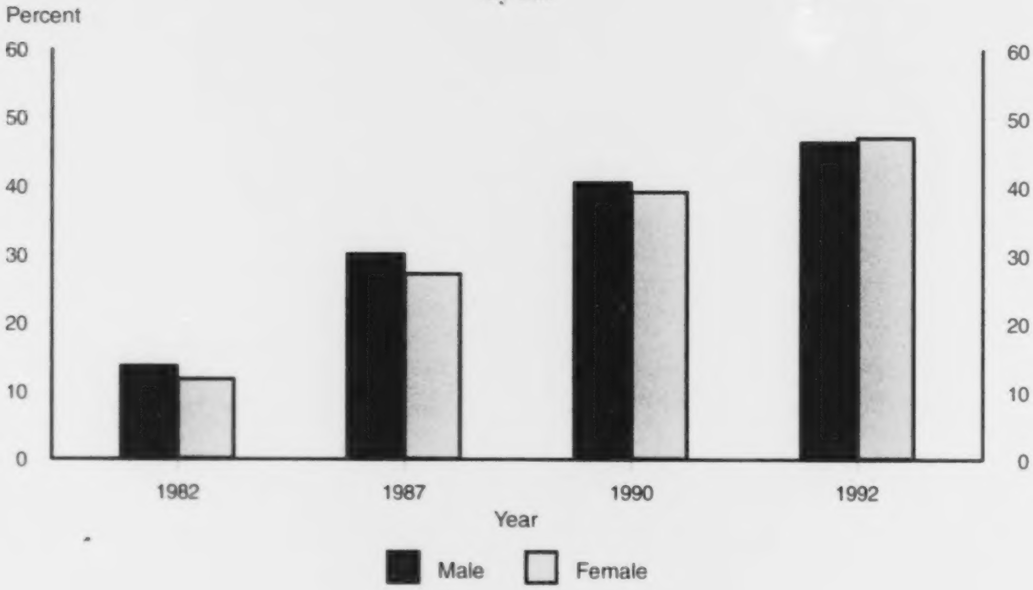
* The panel's recommendation of 0.5 units of computer science was not included here; however, it is included in supplemental tables 25-1 and 25-2.

NOTE: For a description of the sampling procedures and related issues for the High School and Beyond Transcript Study and the later transcript studies, see the supplemental note to this indicator. Urbanicity breakouts used in the 1987 and 1990 NAEP Transcript Studies are shown in supplemental tables 25-1 and 25-2. Because urbanicity categories are not comparable across data sources, percentage point changes could not be calculated for all years.

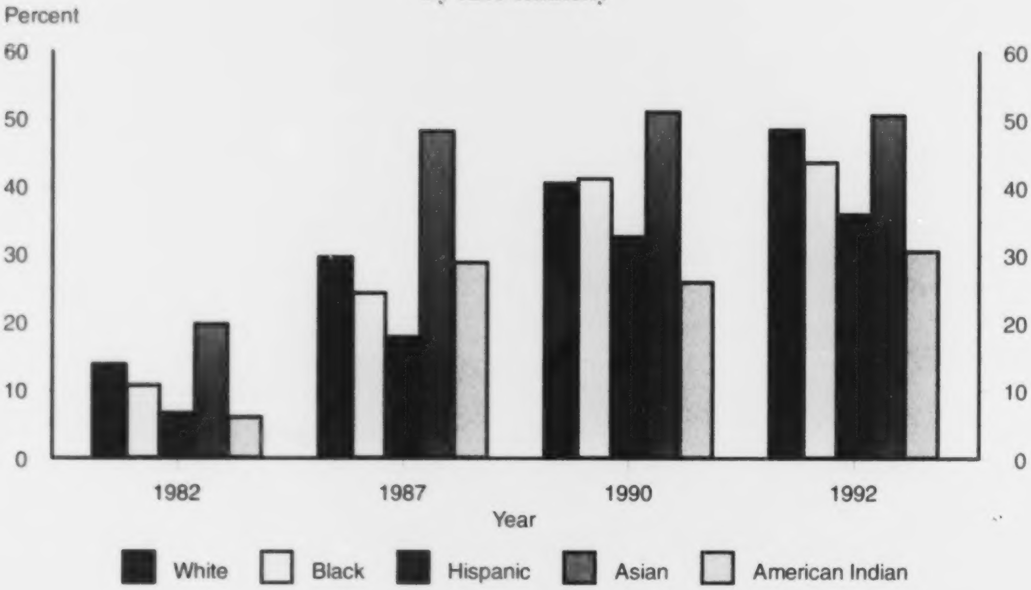
SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Transcript Study; 1987 and 1990 NAEP High School Transcript Studies; and National Education Longitudinal Study Transcripts, 1992.

Percentage of high school graduates who earned the recommended units in core courses*: 1982, 1987, 1990, and 1992

By sex



By race/ethnicity



* The graph shows the recommended 4 units of English and 3 units each of science, social studies, and mathematics, but does not include the recommended 0.5 units of computer science.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Transcript Study, 1987; 1990 NAEP High School Transcript Studies; National Education Longitudinal Study Transcripts, 1992.

High school mathematics and science course-taking patterns

- **High school graduates in 1992 were more likely to take mathematics courses at the level of algebra I or higher and science courses at the level of biology or higher than their counterparts in 1982.**
- **The proportion of high school graduates who took algebra II and geometry and the proportion who took biology and chemistry each increased 6 percentage points between 1990 and 1992 (to 50 and 54 percent, respectively).**
- **The percentage of high school graduates who had taken remedial mathematics declined from 33 percent in 1982 to 17 percent in 1992.**

Courses in mathematics and science can teach students to use higher level thinking skills to solve complex problems. These skills are considered valuable both in educational and marketplace settings. Analysis of course-taking patterns of high school graduates can indicate levels of exposure in these fields for individuals who are about to advance to higher education or enter the work force.

- **A larger percentage of 1992 graduates, both male and female, earned credit in biology, chemistry, and physics than their 1982 counterparts. Similar percentages of males and females earned credit in chemistry in both years. Females were more likely to earn credit in biology, while males were consistently more likely to earn credit in physics (see supplemental table 25-1).**

Percentage of high school graduates taking selected mathematics and science courses in high school: 1982, 1987, 1990, and 1992

Mathematics and science courses	1982	1987	1990	1992	Percentage point change 1982–1987	1987–1990	1990–1992	1982–1992
Mathematics								
Remedial/below grade level math	32.5	24.9	23.6	17.4	-7.6	-1.3	-6.2	-15.1
Algebra I	[2]80.2	—	—	[2]93.2	—	—	—	13.0
Algebra II	36.9	47.1	49.2	56.1	10.3	2.1	6.9	19.2
Geometry	48.4	61.5	64.7	70.4	13.1	3.2	5.7	22.0
Trigonometry	12.2	19.0	18.4	21.1	6.8	-0.7	2.7	8.9
Analysis/precalculus	5.8	12.8	13.5	17.2	7.0	0.7	3.7	11.4
Calculus	4.3	6.2	6.6	10.1	1.8	0.4	3.5	5.8
Algebra II and geometry	29.1	42.4	44.0	50.1	13.4	1.6	6.1	21.0
Algebra II, geometry, trigonometry, and calculus	0.8	2.4	2.2	2.7	1.6	-0.2	0.5	1.9
Science								
Biology	78.7	88.3	91.6	93.0	9.7	3.3	1.3	14.3
Chemistry	31.6	44.8	49.6	55.5	13.1	4.9	5.9	23.9
Physics	13.5	19.5	21.5	24.7	6.1	2.0	3.2	11.2
Biology and chemistry	28.6	43.0	48.2	53.9	14.4	5.2	5.7	25.3
Biology, chemistry, and physics	9.8	16.8	18.9	21.6	7.0	2.1	2.7	11.8

— Not available.

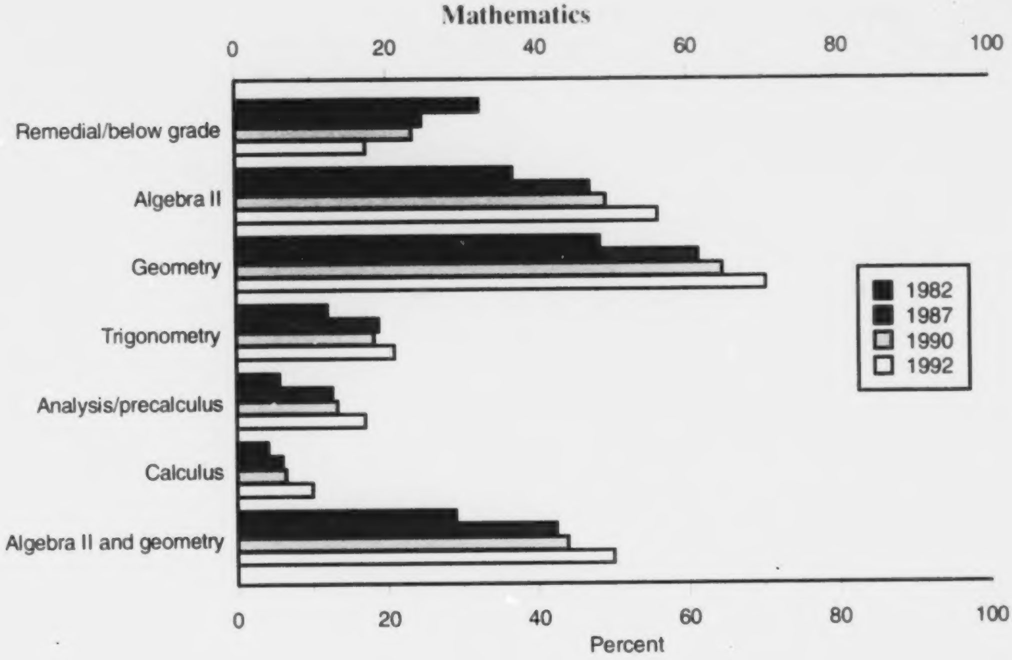
The minimum number of units used for inclusion in this indicator was 1.00 for individual courses except for algebra II, trigonometry, and analysis/precalculus where 0.5 was set as the minimum number of credits.

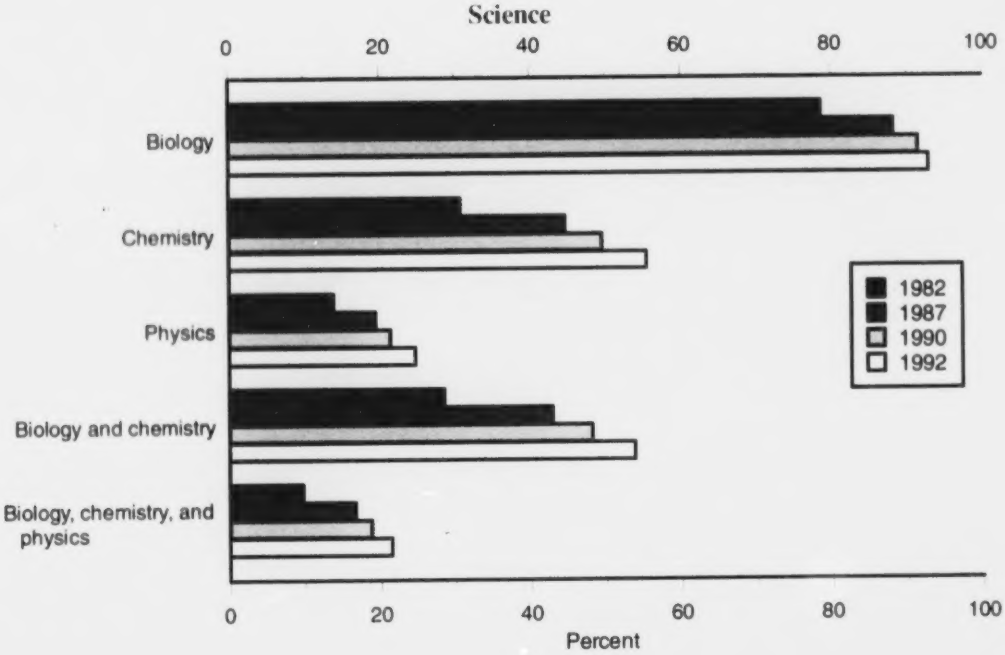
[2] Algebra I was revised from previously published figures to include those students who had taken algebra I, or its equivalent, before entering high school.

NOTE: Percentages reflect only those courses taken in high school except for algebra I. Because some students take these other courses in the eighth grade, these percentages could underestimate the number of individuals who have ever taken these subjects in school. See supplemental note to *Indicator 25* for further explanation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Transcript Study; 1987 and 1990 NAEP High School Transcript Studies; and National Education Longitudinal Study Transcripts, 1992.

Percentage of high school graduates taking selected mathematics and science courses: 1982, 1987, 1990, and 1992





SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Transcript Study; 1987 and 1990 NAEP High School Transcript Studies; and National Education Longitudinal Study Transcripts, 1992.

Graduate field of study, by sex

The female field concentration ratio shows how much the fields studied by women differ from those studied by men. Ratios above 1.0 indicate that women are more likely than men to major in a field, and ratios below 1.0 indicate the opposite pattern. Changes in the ratio show whether differences in the field preferences of men and women are narrowing or widening. Thus they point to possible future changes in the occupations and earnings potential of women compared to men.

- **Overall, in 1992, relatively more women than men earned graduate degrees in the humanities, social/behavioral sciences, education, and health professions. A higher proportion of men than women earned graduate degrees in natural sciences, computer sciences and engineering, and business management.**
- **Between the early 1970s and early 1980s, the concentration ratio for humanities at the master's degree level decreased dramatically; since the mid-1980s, the ratio has remained fairly steady, with a slightly higher proportion of women than men earning master's degrees in humanities.**
- **Differences in the proportions of men and women earning master's degrees in business management narrowed between 1971 and the mid-1980s when the trend leveled off. The differences in the proportion earning a doctor's degree in this field narrowed between 1971 and 1989, then dropped slightly. Nevertheless, in 1992, men were almost twice as likely as women to earn graduate degrees in business management.**
- **From 1971 until 1983, a higher percentage of men than women earned master's degrees in the social and behavioral sciences. From 1984 to the present, a higher percentage of women than men earned master's degrees in this field. At the doctorate level, women have been consistently more likely to earn a degree in the social and behavioral sciences since 1971.**

Female field concentration ratio: Selected academic years ending 1971–92[1]

Field of study and graduate degree	1971	1974	1977	1980	1983	1986	1989	1992
Master's degrees								
Humanities	1.58	1.34	1.17	1.08	1.06	1.12	1.06	1.08
Social/behavioral sciences	0.69	0.67	0.76	0.88	0.99	1.08	1.07	1.05
Natural sciences	0.48	0.43	0.44	0.43	0.48	0.53	0.56	0.54
Computer sciences and engineering	0.03	0.05	0.07	0.11	0.15	0.20	0.19	0.19
Education	1.92	1.99	2.18	2.42	2.64	2.66	2.84	2.84
Business management	0.06	0.09	0.19	0.30	0.41	0.45	0.47	0.46
Health professions	1.85	2.00	2.37	2.66	3.01	3.16	3.29	3.30
Other technical/professional[2]	1.56	1.24	1.04	1.10	1.22	1.27	1.30	1.33
Doctor's degrees								
Humanities	1.89	1.71	1.41	1.10	1.09	1.08	1.05	1.13
Social/behavioral sciences	1.29	1.28	1.29	1.30	1.38	1.42	1.48	1.50
Natural sciences	0.67	0.63	0.56	0.56	0.59	0.58	0.64	0.69
Computer sciences and engineering	0.04	0.08	0.11	0.11	0.11	0.15	0.18	0.19
Education	1.60	1.52	1.61	1.86	1.99	2.10	2.32	2.47
Business management	0.17	0.24	0.21	0.41	0.41	0.52	0.65	0.51
Health professions	1.19	1.24	1.46	1.91	1.57	1.94	2.35	2.33
Other technical/professional[2]	0.76	0.70	0.88	0.87	0.83	1.00	0.98	1.01

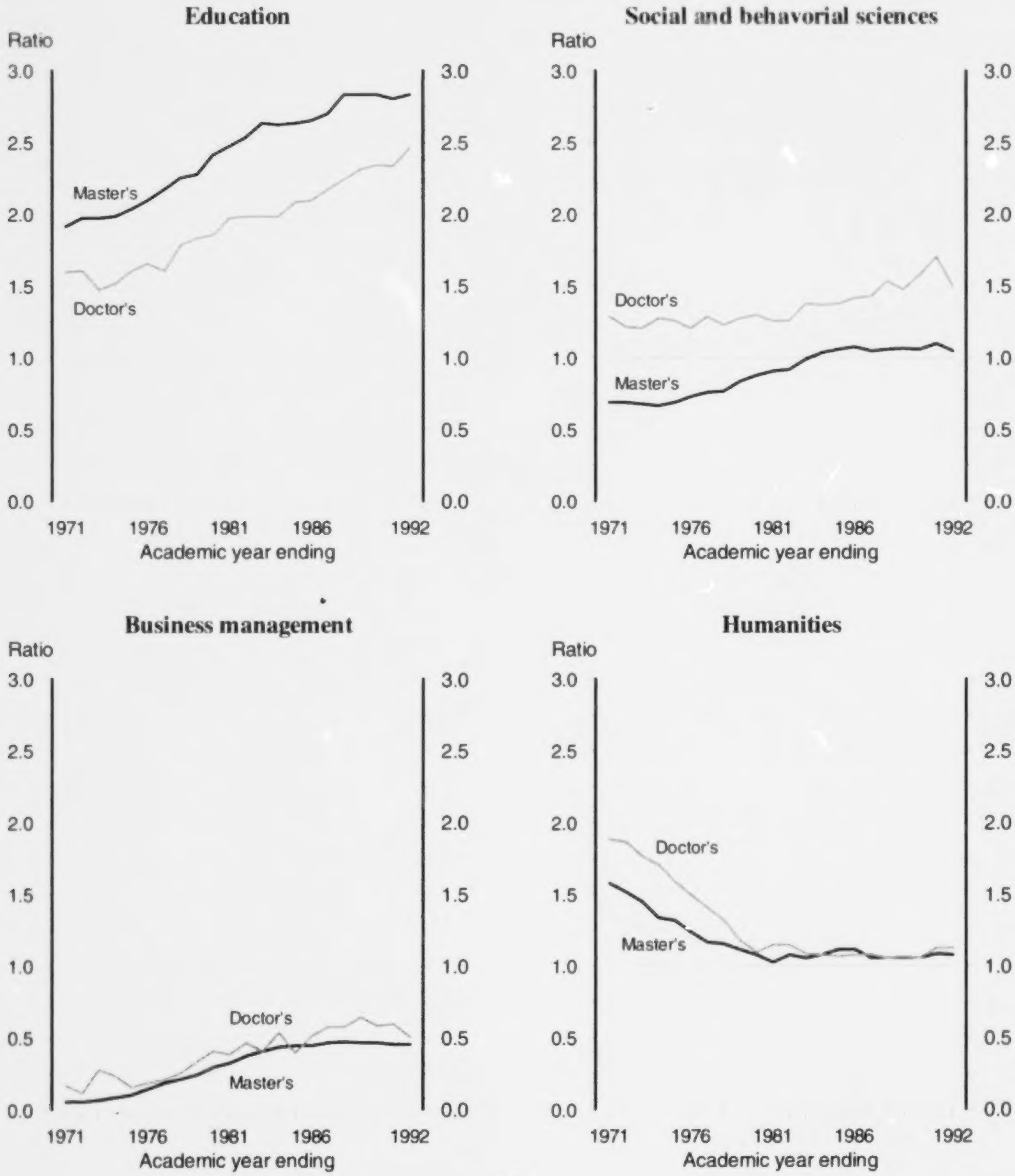
[1] Because of the reclassification of Instructional Programs in 1991–92, the figures for earlier years (1971–91) have been reclassified when necessary to conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures.

[2] Principally composed of public administration at the master's degree level and of agriculture and natural resources at the doctor's degree level. See Glossary for full definition of "other technical/professional" fields.

NOTE: The female field concentration ratio is calculated as the percentage of women earning degrees who majored in a specific field divided by the percentage of men earning degrees who majored in the same field. Includes degrees conferred to U.S. and non-U.S. citizens.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

Female field concentration ratio of graduate degrees conferred, by field of study and degree level: Academic years ending 1971-92



NOTE: The female field concentration ratio is calculated as the percentage of women earning degrees who majored in a specific field divided by the percentage of men earning degrees who majored in the same field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

Economic and Other Outcomes of Education

Education is an investment in human skills. Like all investments, it involves both a cost and a return. The cost to the student of finishing high school is quite low, because it consists mainly of the relatively low wages earned by a 16- to 19-year-old dropout. The cost to the student of attending college is higher, and principally includes tuition, books, fees, and the earnings given up by not working or by working part time in college. In contrast, the returns come in many forms. Some are monetary, while others are personal, social, cultural, and more broadly economic. Some are directly related to the labor market, others are not. Some accrue to the individual, others to society and the nation in general. Among the returns related to the labor market are better employment opportunities, jobs that are less sensitive to general economic conditions, better opportunities to participate in employer-provided training, and higher earnings. Other returns that are not related to the labor market and are often attributed to education include greater interest and participation in civic affairs such as rates of volunteerism (*Indicator 33*) or voting (*Indicator 35, Condition 1994*), and lower rates of welfare dependency (*Indicator 32*) or greater knowledge of healthy behavior (*Indicator 36, Condition 1994*).

The costs and returns of investing in postsecondary education have changed over time,* which affects the incentive for individuals to participate. Measures presented in this section illuminate changes in the rewards of finishing high school (or conversely, the penalties of not finishing) and changes in the rewards of investing in postsecondary education.

Penalties of Not Graduating From High School

These indicators suggest some general conclusions regarding the labor market penalties of not finishing high school. The immediate difficulty of making the transition from full-time school attendance to full-time work appears much greater for those who leave school before finishing high school. Without prior job experience or specialized training, school leavers may find it difficult to find jobs that they are willing to take. In October 1993, of young people 16 to 24 years old who had left school *during the previous year* without finishing high school, only 47 percent were employed (up from 36 percent the previous year). In contrast, of those who had graduated from high school in 1993 and did not enroll in college, 64 percent were employed (about the same as the previous year) (*Indicator 28*).

As young people enter their 20s, some of the problems of making the transition from school to the work force are solved. For example, among males in October 1993, the employment rate was 62 percent among recent high school dropouts (table 28-1) compared to 66 and 71 percent among male dropouts aged 20–24 and 25–29, respectively, in March 1994 (*Indicator 29*). Nevertheless, high school dropouts have lower employment rates than graduates at all ages.

Rewards of College Attendance and Graduation

The ratio of the median annual earnings of those who attend and graduate from college to the median annual earnings of high school graduates provides an indication of the financial returns of attending and graduating from college. In 1993, for males 25–34 years old, the earnings premium for attending college and earning a bachelor's degree was 57 percent, and the earnings premium for attending college without attaining a bachelor's degree was 12 percent. For females of the same age group, the 1993 premium for attending and earning a bachelor's degree was even larger—99 percent, while the premium for attending without attaining a bachelor's degree was 31 percent (*Indicator 30*).

Welfare Recipiency

The benefits of education to the individual include a higher income and a greater likelihood of employment. To the nation, these benefits correspond to a larger, more productive work force. Among those 25 to 34 years old who went beyond eighth grade, higher education levels also correspond to lower rates of welfare recipiency. For instance, in 1992, 17 percent of that age group with 9 to 11 years of schooling received income from AFDC or public assistance, while 6 percent of those with 12 years of schooling received welfare income. Among black 25- to 34-year-olds, the contrast is even more striking—36 percent of those with 9 to 11 years of schooling received welfare income in 1992, compared to 13 percent of those with 12 years of schooling (*Indicator 32*).

Completing high school appears to lead to better employment prospects and, thus, less reliance on welfare. Higher education levels correspond to better employment prospects (*Indicators 28, 29, and 30*). Those with a high school education or more have lower rates of welfare recipiency (*Indicator 32*).

Volunteerism

Education plays a vital role in preparing individuals for active participation in the political, economic, and social lives of their communities. Volunteerism rates for those with postsecondary education are one indication of the relationship between educational attainment and civic responsibility.

There is a strong positive relationship between volunteerism and participation in postsecondary education. Those with some postsecondary education were more likely to volunteer and make charitable contributions. For example, 68 percent of individuals over the age of 25 with some postsecondary education volunteered at least some time in 1992, while 37 percent of the individuals over 25 years old with no postsecondary education volunteered in 1992. Among the same age groups, 87 percent of those with some postsecondary education and 63 percent of those without postsecondary education made charitable contributions in 1992 (*Indicator 33*).

Many factors may influence this relationship. Those with more education may feel a greater responsibility to perform volunteer community service than those with less education. The higher incomes of those with postsecondary education may influence volunteering and charitable giving behavior. In 1992, those with higher incomes were more likely to volunteer and give, regardless of postsecondary education participation. However, within the same income group, individuals with postsecondary education were more likely to volunteer or give than those without postsecondary education (*Indicator 33*).

Literacy

One of the most basic functions of education is to improve literacy. The economic outcomes of literacy are similar to the outcomes of education—higher levels of literacy are associated with better labor market outcomes for the individual. For instance, in 1991, the least literate male and female workers had annual earnings that were about half of the average earnings for all male and all female workers, respectively. This occurs in part because those with lower literacy levels have less education. However, among those who ended their formal education with a high school diploma, the least literate had earnings that were still lower than the average for all those with that level of educational attainment—about one-fourth less than the average for both men and women (*Indicator 31*).

Doctoral Programs

Doctoral programs constitute the highest level of the education system. The first job taken by new doctoral recipients is indicative of the focus of doctoral programs. The proportion of new doctoral recipients with definite job plans in the United States who have taken jobs in higher education has fallen from 68 percent in 1970 to 52 percent in 1993. However, plans of doctoral recipients vary greatly depending on their field of study. For example, 86 percent of new humanities doctoral recipients with definite job plans in the United States took jobs in higher education, whereas less than one-fourth of new physical sciences or engineering doctoral recipients took higher education jobs. The varied job outcomes of graduates of doctoral programs reflect the different job opportunities for graduates of these programs across disciplines.

NOTES:

*See Murphy, Kevin and Finis Welch. "Wage Premiums for College Graduates: Recent Growth and Possible Explanations," *Educational Researcher*, May 1989 for a more detailed presentation of changes between 1964 and 1986 in the relative earnings of workers with different levels of education and experience by sex and race.

Transition from high school to work

- **In 1993, 64 percent of recent high school graduates not enrolled in college were employed compared to 47 percent of recent dropouts. During the period of economic recession between 1989 and 1992, the percentage employed in both groups fell about 10 percentage points. However, in 1993, the employment rate for dropouts increased markedly, rising more than 10 percentage points.**

- **Nearly every year between 1973 and 1993, white dropouts were more likely to be employed than black high school graduates not enrolled in college.**

The transition from high school to work can be difficult. Without prior job experience or specialized training, school leavers may find it difficult to find jobs they are willing to take. The employment rate among school leavers, both those who have not finished high school and those who have finished but have not gone on to college, is an indication of the ease of making the transition.

- **Among recent high school graduates in the labor force, males were equally as likely to be unemployed as females. However, males continue to be more likely than females to be in the labor force and to be employed. While the percentage of females in the labor force dropped by more than 5 percentage points between 1991 and 1992, it rebounded by more than 13 percentage points in 1993 (see supplemental table 28-1).**

Employment rates for recent high school graduates not enrolled in college and for dropouts, by graduation status and race/ethnicity: October 1973–93

	Recent high school graduates not enrolled in college				Recent school dropouts			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1973	70.7	74.9	49.8	(*)	51.5	55.1	43.9	(*)
1974	69.1	72.9	45.9	(*)	48.1	53.9	35.9	(*)
1975	65.1	68.9	36.9	(*)	41.4	46.2	22.0	46.8
1976	68.9	73.2	38.5	(*)	43.5	49.7	20.8	(*)
1977	71.9	76.1	43.3	65.8	50.2	56.6	34.5	(*)
1978	74.0	79.1	45.9	69.2	49.7	54.2	41.1	50.7
1979	72.4	76.4	44.1	69.4	48.8	54.2	27.6	(*)
1980	68.9	74.6	35.0	(*)	43.7	51.2	20.8	47.7
1981	65.9	73.0	31.5	(*)	40.5	51.2	11.5	50.0
1982	60.4	68.5	29.4	43.9	36.8	44.5	16.4	(*)
1983	62.9	69.8	34.9	(*)	43.2	49.4	26.5	(*)
1984	64.0	70.7	44.8	49.0	42.9	51.3	23.8	35.7
1985	62.0	71.0	34.4	(*)	43.5	50.0	29.3	37.6
1986	65.2	71.5	41.0	64.9	46.1	50.5	31.6	46.4
1987	68.9	75.3	46.9	53.8	41.2	48.1	26.1	(*)
1988	71.9	78.2	55.5	57.1	43.5	47.6	17.3	55.4
1989	71.9	77.6	53.5	49.3	47.1	57.6	26.3	(*)
1990	67.5	75.1	44.9	(*)	46.7	56.2	30.5	(*)
1991	59.6	67.1	32.5	(*)	36.9	38.4	24.7	(*)
1992	62.7	71.9	37.2	53.9	36.1	43.2	(*)	28.8
1993	64.2	71.9	42.2	43.4	46.9	52.8	26.9	(*)

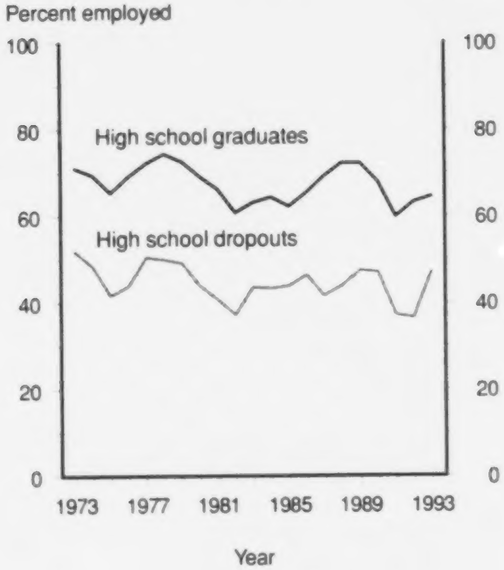
* Too few sample observations for a reliable estimate.

NOTE: Recent high school graduates are individuals aged 16–24 who graduated during the survey year. Recent school dropouts are individuals aged 16–24 who were not high school graduates and who were in school 12 months earlier, but who were not enrolled during the survey month.

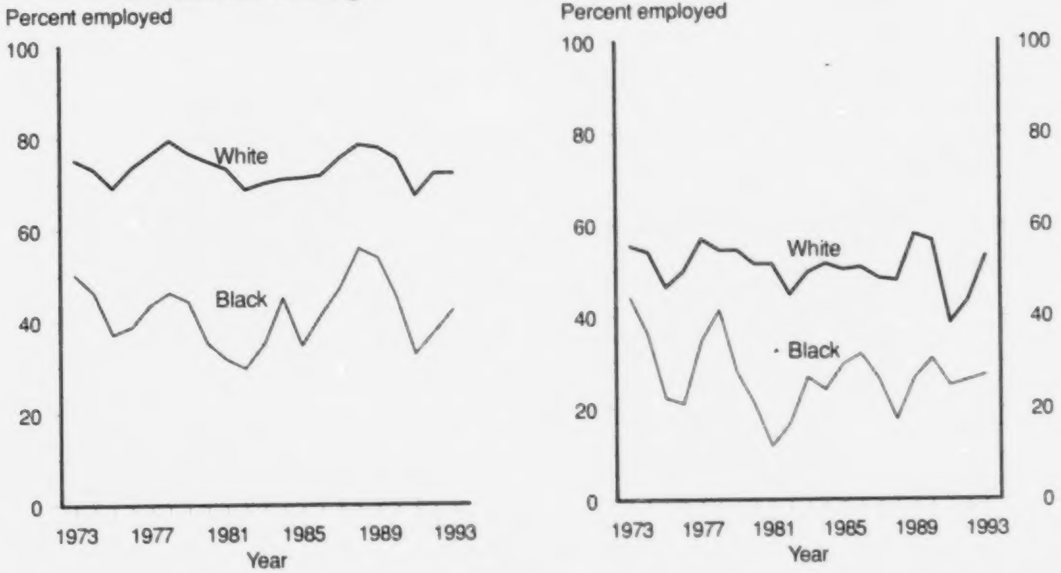
SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Employment rates of high school students, by graduation status and race/ethnicity: October 1973–93

By graduation status



By race/ethnicity



Recent high school graduates, not enrolled in college

High school dropouts

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Employment of young adults

The percentage of a population group employed is influenced by a variety of factors. Some factors influence the willingness of employers to offer jobs to individuals with different levels of education at the going wage rate, and others influence the willingness of these individuals to take jobs at that rate. The higher the proportion employed, the better are their labor market opportunities relative to other things they could do, and vice versa. To a certain extent, employment rates for older groups are an indication of what younger groups may experience when they become older. However, labor market opportunities were different when these older groups were beginning their work lives than they are for today's young adults.

- **Among males 25- to 29-years-old, employment rates were somewhat lower for high school graduates than for college graduates. For those who had not completed high school, the employment rates were substantially lower than for those with higher levels of attainment.**
- **Among females 25- to 29-years-old, employment rates increased markedly with each higher level of educational attainment. The difference between those who had not finished high school and those who had done so was particularly large (35 percent versus 65 percent).**
- **Among females aged 30 to 64, those who had not finished high school were also much less likely to be employed than those with higher levels of attainment.**
- **Among males aged 30 to 59, employment rates for those with a bachelor's degree were somewhat higher than for those with only some college.**

Percentage of the population* who were employed, by sex, educational attainment, and age: March 1994

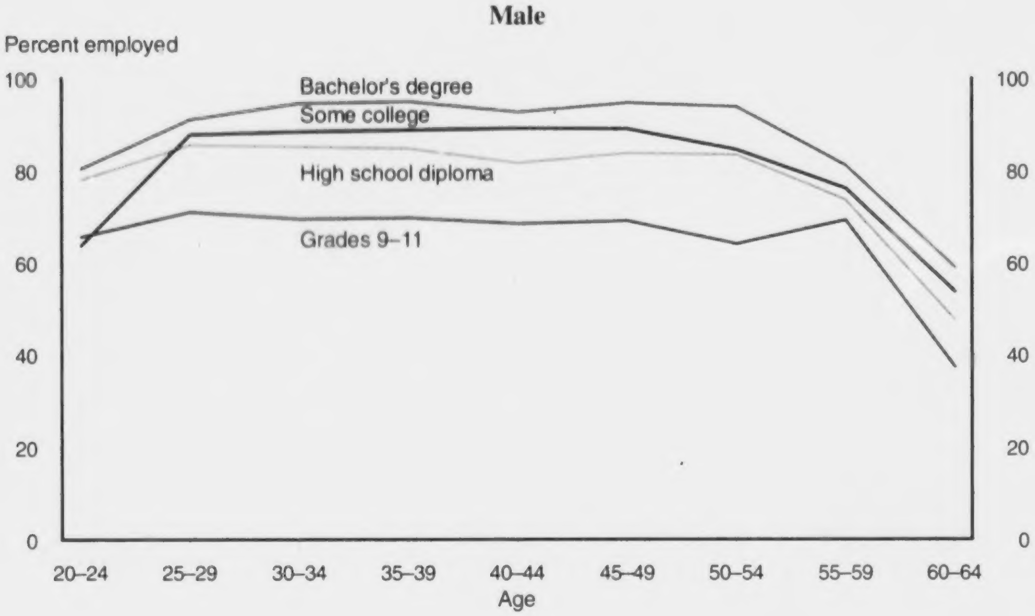
	Males					Females				
Age	Total	Grades 9 to 11	High school diploma	Some college	Bachelor's degree	Total	Grades 9 to 11	High school diploma	Some college	Bachelor's degree
20–24	70.7	65.5	77.9	63.6	80.3	63.3	30.2	63.6	67.6	86.7
25–29	84.9	70.8	85.4	87.6	90.9	68.9	35.1	65.0	75.0	84.4
30–34	85.7	69.3	85.0	88.2	94.4	68.6	44.3	67.1	73.6	79.0
35–39	86.3	69.6	84.6	88.6	94.8	70.4	45.8	70.5	74.2	79.4
40–44	85.9	68.4	81.5	89.0	92.5	75.8	51.1	73.8	79.1	85.6
45–49	85.5	69.0	83.6	88.9	94.5	74.4	53.9	72.7	78.6	85.3
50–54	83.2	64.0	83.3	84.4	93.6	68.0	49.7	67.3	75.7	81.2
55–59	72.6	69.1	73.4	76.0	81.0	56.9	39.4	58.7	62.8	70.4
60–64	47.5	37.2	47.4	53.6	58.8	36.1	23.4	37.3	46.2	46.7

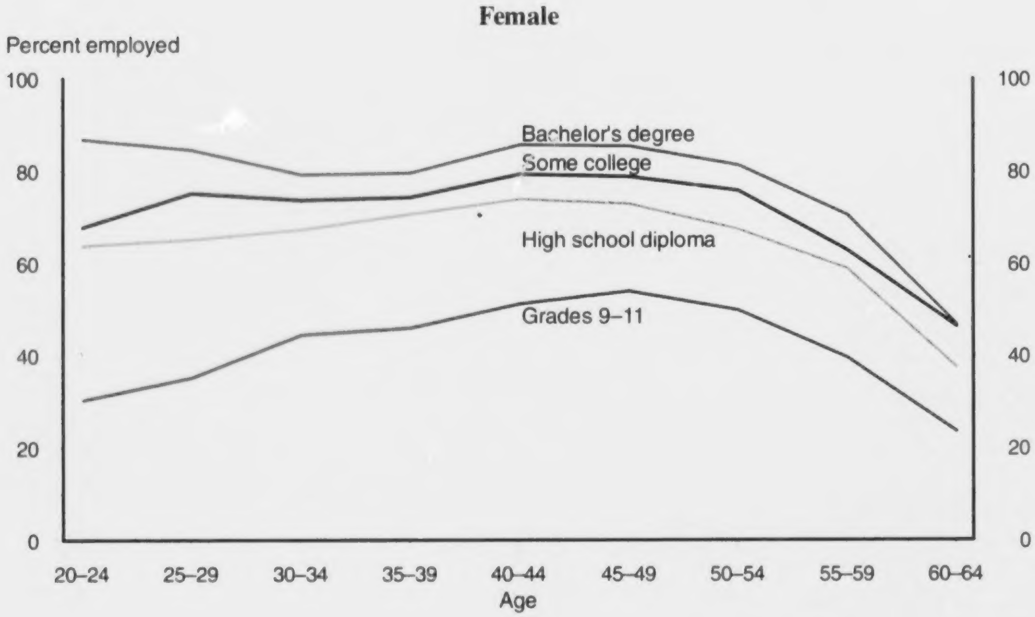
* Noninstitutionalized civilians. Some individuals in the population are not in the labor force, that is, they are not looking for a job. They may want to attend school or work in the home, for example. Many young persons aged 20–24 years old were enrolled in school or college and are not in the labor force. Women, especially older women, are also less likely to be in the labor force than their male counterparts. An alternative measure of labor market opportunities, the unemployment rate, is presented in supplemental table 29-1. Also, see the supplemental note to *Indicator 28* for a comparison of labor force statistics.

NOTE: Included in the total but not shown separately are those who have attained eight or fewer years of schooling. The category "grades 9 to 11" includes those who have attended 12th grade but have not received a diploma; "high school diploma" includes those who have received an equivalency certificate; "some college" includes those who have received an associate's degree; "bachelor's degree" includes those who have received advanced degrees.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Survey, 1994.

Percentage of the population* who were employed, by sex, educational attainment, and age: March 1994





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* Noninstitutionalized civilians.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Survey, 1994.

Annual earnings of young adults

- **In 1993, the median annual earnings of males aged 25–34 who had not completed high school (9–11 years of school completed) were about 67 percent of the earnings of their counterparts who had completed high school. The ratio of earnings of female dropouts to graduates was about 59 percent.**
- **Since 1970, the earnings advantage for 25- to 34-year-olds with some college (13–15 years of school) and college degrees (16 or more years of school) was generally greater for females than for males; that is, the percentage difference between the earnings of females with some college or a college degree and the earnings of female high school graduates was greater than the corresponding percentage difference for males.**
- **The earnings advantage of completing college increased between 1970 and 1993 for both males and females.**

Wages and salaries are influenced by many factors, including the employer's perception of the productivity and availability of workers with different levels of education. They are also affected by economic conditions in the industries that typically employ workers with different levels of education. Annual earnings are influenced by the number of weeks worked in a year and the usual hours worked each week. The ratio of annual earnings of high school dropouts or college graduates to those of high school graduates is affected by all these factors; it is a measure of the earnings disadvantage of not finishing high school and the earnings advantage of completing college.

- **In 1993, the median annual earnings of workers with a bachelor's degree were much higher than the earnings of those who attended only some college. For example, among female workers 25 to 34 years old, the median annual earnings of college graduates were approximately $26,000, while those of females with some college were approximately $17,000 (see supplemental table 30-2).**

Ratio of median annual earnings of wage and salary workers 25 to 34 years old with 9–11, 13–15, and 16 or more years of school to those with 12 years of school, by sex: Selected years 1970–93

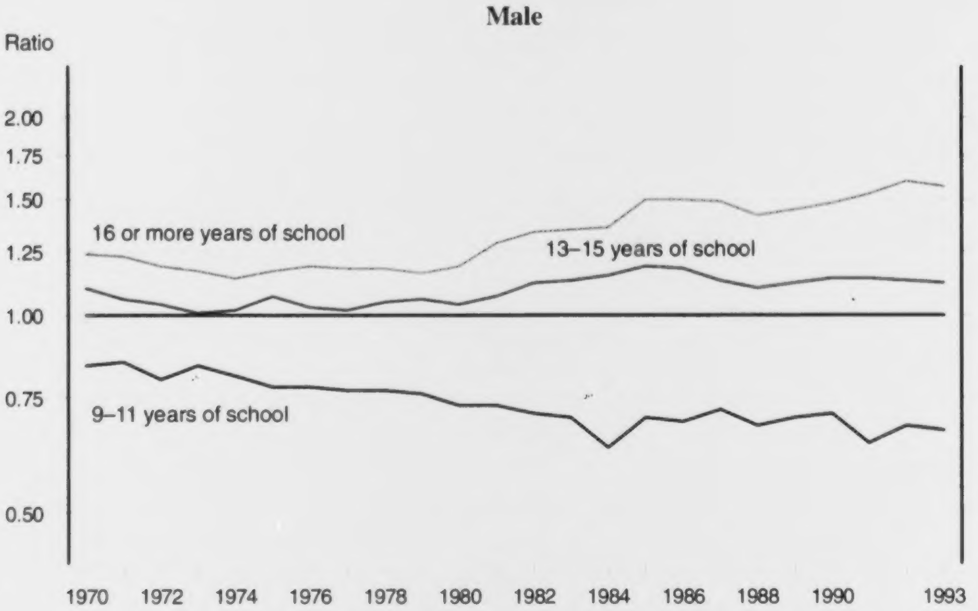
	9–11 years of school		13–15 years of school		16 or more years of school	
Year	Male	Female	Male	Female	Male	Female
1970	0.84	0.69	1.10	1.19	1.24	1.68
1972	0.80	0.70	1.04	1.16	1.19	1.63
1974	0.81	0.62	1.02	1.19	1.14	1.74
1976	0.78	0.61	1.03	1.14	1.19	1.58
1978	0.77	0.54	1.05	1.17	1.18	1.55
1980	0.73	0.65	1.04	1.24	1.19	1.52
1982	0.71	0.66	1.12	1.21	1.34	1.63
1984	0.63	0.56	1.15	1.21	1.36	1.61
1986	0.69	0.65	1.18	1.21	1.50	1.78
1988	0.68	0.56	1.10	1.31	1.42	1.81
1990	0.71	0.58	1.14	1.34	1.48	1.92
1991*	0.64	0.64	1.14	1.32	1.53	1.90
1992*	0.68	0.76	1.13	1.34	1.60	2.00
1993*	0.67	0.59	1.12	1.31	1.57	1.99

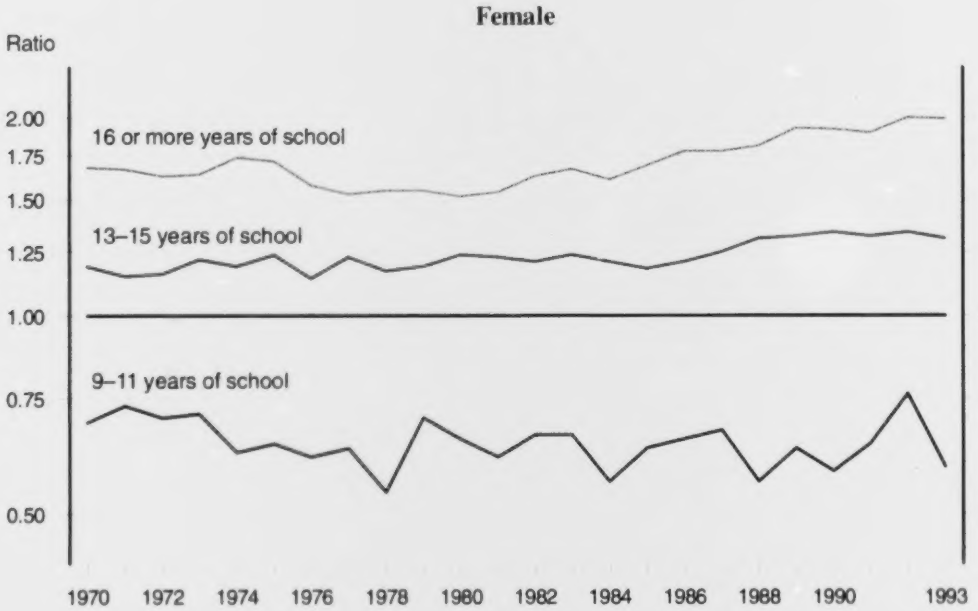
* Beginning with the March 1992 survey, which collected earnings for calendar year 1991, new questions were used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 22* for further discussion.

NOTE: This ratio is most usefully compared to 1.0. For example, the ratio of 1.57 in 1993 for males with 16 or more years of school means that they earned 57 percent more than males with 12 years of school. The ratio of .67 in 1993 for males with 9–11 years of school means that they earned 33 percent less than males with 12 years of school.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Ratio of median annual earnings of wage and salary workers 25 to 34 years old with 9–11, 13–15, and 16 or more years of school to those with 12 years of school, by sex: 1970–93





NOTE: One (1.0) on the scale represents earnings equal to those with 12 years of school; 2.0 represents double their earnings; 0.5 represents half their earnings. The scale on the graph makes the distance between 1.0 and 2.0, or doubling, the same as that between 1.0 and 0.5, or halving.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Labor market outcomes of literacy and education

> *As our society becomes more technologically advanced, many have argued that there is a greater need for all individuals to become more literate and for a larger proportion to develop advanced skills. Some argue that a growing number of workers are being expected to comprehend information presented in lengthy and sometimes complex formats, to compare and contrast information, to generate ideas based on what they read, and to apply arithmetic operations sequentially to solve a problem. Furthermore, strong literacy skills are a prerequisite for fully taking advantage of formal education and job-related training. The degree of variability in labor market outcomes by literacy within educational attainment levels is an indicator of the direct and indirect (i.e., through education) effects of literacy on success in the workplace.*

- **Educational attainment and literacy level are both positively associated with higher annual earnings and lower unemployment rates. Furthermore, literacy is positively associated with earning higher wages and a reduced likelihood of being unemployed within different levels of educational attainment.**
- **In 1992, of males whose highest education level was a high school diploma, those at prose proficiency level 4 (scores between 326 and 375) had 29 percent higher annual earnings than those at proficiency level 2 (scores between 226 and 275). The difference in earnings between those females at proficiency level 4 and those females at proficiency level 2 was not statistically significant, however.**
- **Of females whose highest education level was a high school diploma, those at prose proficiency level 4 were far less likely to be unemployed than those at proficiency level 2 (unemployment rates of 5 versus 12 percent). The unemployment rates for those females with a bachelor's degree were similar at proficiency levels 2, 3, and 4, however.**

Labor market outcomes of 25- to 64-year-olds, by sex, prose proficiency level, and highest education level attained: 1992

	Male						Female					
	Average annual earnings of employed persons in the previous year											
Highest		Prose proficiency level						Prose proficiency level				
education level	Total	1	2	3	4	5	Total	1	2	3	4	5
Total	**$29,175**	**$15,755**	**$22,046**	**$29,610**	**$39,941**	**$48,965**	**$17,090**	**$9,650**	**$13,260**	**$16,759**	**$21,882**	**$28,707**
Grade 9–11	18,194	16,299	17,763	21,402	—	—	11,145	8,979	11,141	14,304	—	—
High school diploma	22,494	16,417	20,866	24,997	26,825	—	13,554	10,510	12,579	14,565	14,686	—
Some postsecondary[2]	27,279	19,306	24,402	26,654	32,544	—	16,449	11,756	14,540	16,266	18,245	23,038
Associate's degree	31,855	—	29,161	31,615	34,729	—	19,547	—	15,103	20,053	20,603	—
Bachelor's degree	38,115	—	30,105	37,393	38,793	44,140	23,592	—	22,907	20,546	24,447	28,939
	Unemployment rate											
		Prose proficiency level						Prose proficiency level				
	Total	1	2	3	4	5	Total	1	2	3	4	5
Total	**8.3**	**14.9**	**11.5**	**6.4**	**4.1**	**2.3**	**8.5**	**17.3**	**12.7**	**6.7**	**4.0**	**2.3**
Grade 9–11	12.4	14.0	12.2	11.3	—	—	17.8	22.6	16.4	14.4	—	—
High school diploma	8.2	11.3	10.7	5.7	5.1	—	9.3	18.6	12.2	6.1	4.5	—
Some postsecondary[2]	7.4	12.8	10.2	7.0	4.8	—	7.8	17.6	13.5	6.5	4.3	—
Associate's degree	5.5	—	2.5	4.1	7.1	—	5.3	—	7.1	6.2	3.8	—
Bachelor's degree	4.8	—	5.7	4.8	4.8	3.2	4.8	—	5.5	5.1	4.4	3.6

— Too few cases for a reliable estimate.

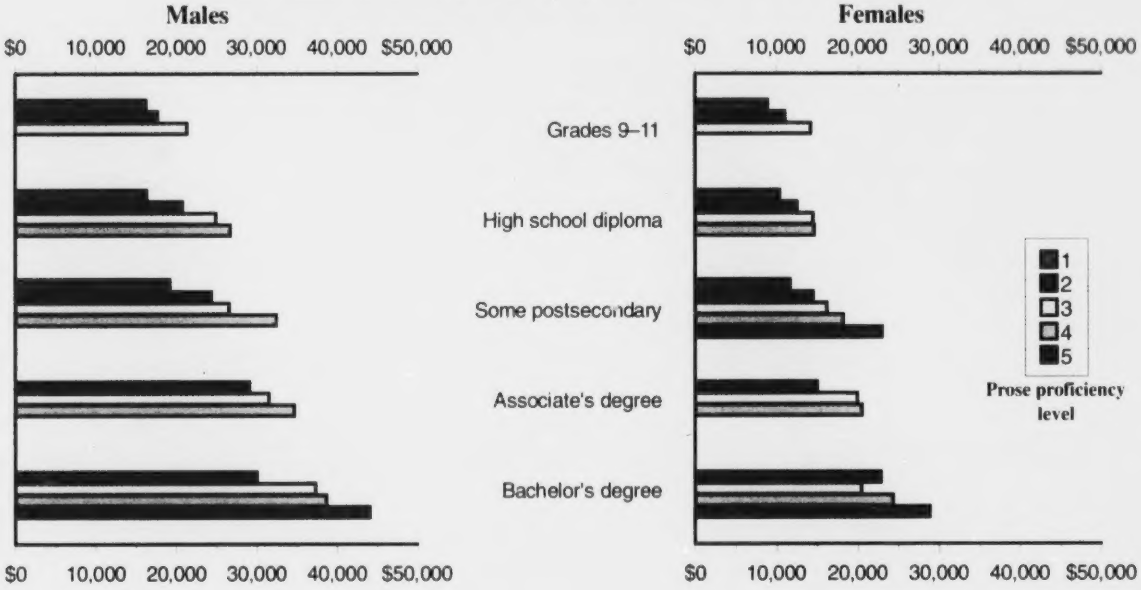
[1] Adults with a highest level of education of grades 1–8, a GED or equivalent, or a graduate degree are included in the total but not shown separately (and are broken out separately in tables 31-1 and 31-2). See supplemental tables 31-1 through 31-5 for additional labor market outcomes and additional literacy domains. See the supplemental note to this indicator for a description of literacy domains and proficiency levels.

[2] Includes vocational schools, less than 2 years of college, and more than 2 years of college without a degree.

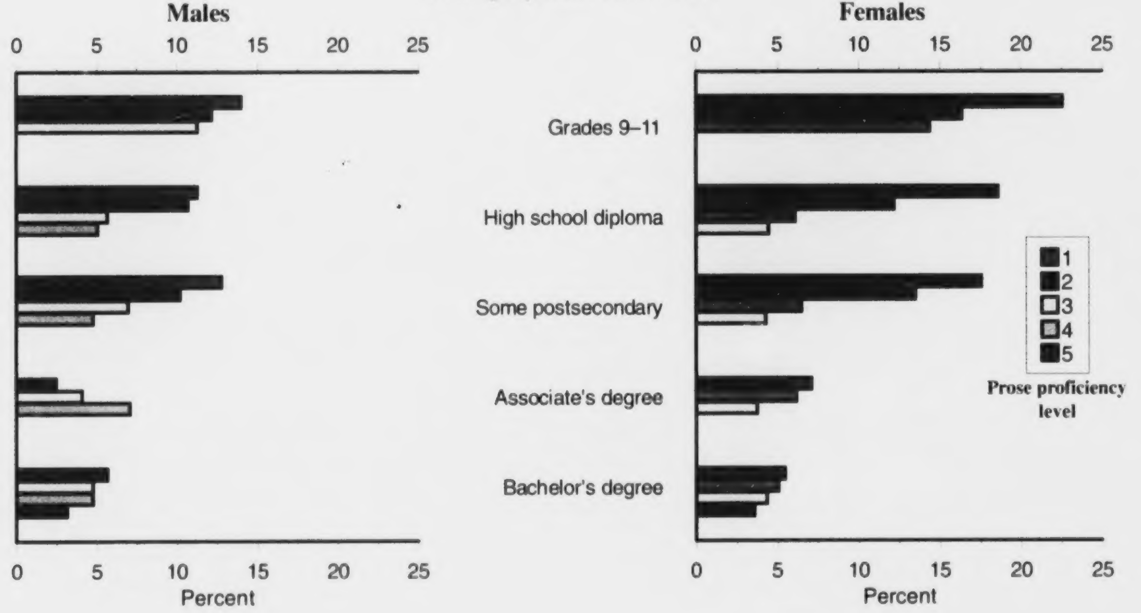
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Labor market outcomes of 25- to 64-year-olds, by sex, prose literacy level, and highest educational level attained: 1992

Average annual earnings of employed persons in the previous year



Unemployment rate: 1992



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Welfare recipiency, by educational attainment

- **In 1992, high school dropouts were three times more likely to receive income from AFDC or public assistance than high school graduates who did not go on to college (17 percent versus 6 percent).**
- **Between 1972 and 1992, both high school dropouts and graduates who did not go on to college became more likely to receive AFDC or public assistance income. During this period, the increase in the likelihood of receiving welfare income was greater for high school dropouts than for graduates who did not go on to college. Therefore, the difference between the two groups in the percentage receiving such income rose (from 7 percent to 12 percent).**

Public investment in education has many potential benefits for the nation. One possible benefit of the availability of free or low cost education is reduced reliance on welfare and public assistance programs among those who attain higher levels of education. The extent to which people with more education rely less on welfare and public assistance is an indication of this benefit. However, not all people who attain higher levels of education do so because of the availability of low cost education. Therefore, the indicator may overstate this benefit from public investment in education.

Percentage of persons aged 25–34 who received income from AFDC or public assistance, by years of schooling completed: 1972–92

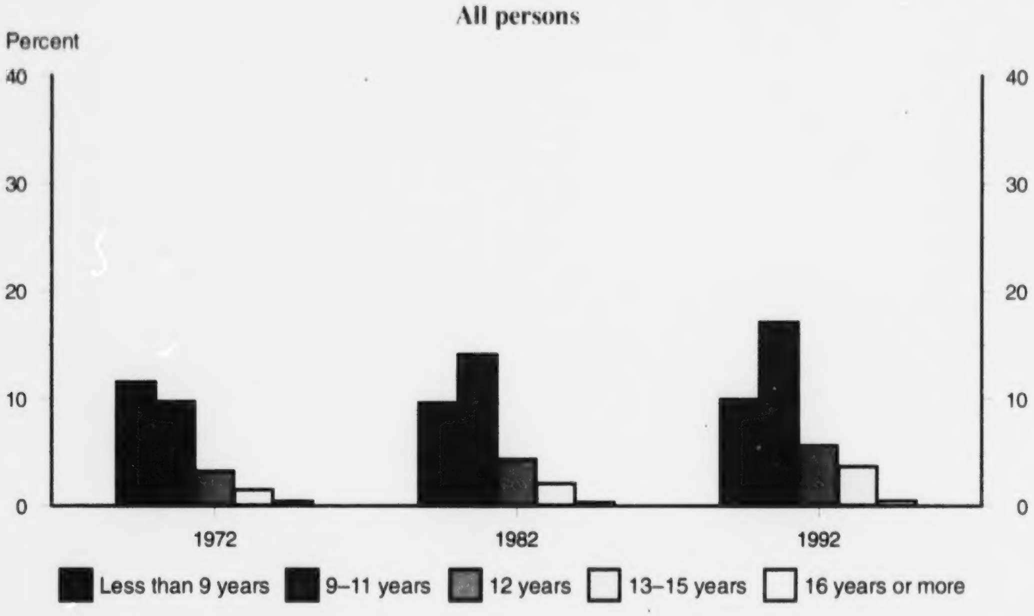
	Years of schooling completed											
	All persons						White		Black		Hispanic	
Year	All levels	Less than 9 years	9–11 years	12 years	13–15 years	16 years or more	9–11 years	12 years	9–11 years	12 years	9–11 years	12 years
1972	4.0	11.5	9.7	3.2	1.5	0.4	6.0	2.2	23.2	12.2	9.6	3.4
1973	3.9	11.7	10.3	3.3	1.7	0.6	5.6	2.1	25.9	12.1	16.2	5.5
1974	4.3	15.0	11.7	3.3	2.0	0.8	8.0	2.4	25.0	10.7	14.2	3.8
1975	3.6	11.3	11.0	3.3	1.5	0.3	7.0	2.4	27.8	10.0	10.6	3.4
1976	3.8	10.9	12.2	3.5	2.1	0.4	7.5	2.3	27.0	11.4	15.0	4.7
1977	3.9	11.7	12.0	3.9	2.1	0.3	8.0	2.6	26.4	12.4	13.1	6.6
1978	3.9	10.8	12.7	3.6	2.5	0.4	7.7	2.3	28.1	12.4	13.7	6.9
1979	3.9	12.4	12.8	3.8	2.1	0.6	7.9	2.5	26.8	12.0	15.1	5.4
1980	4.2	11.8	12.7	4.4	2.5	0.4	8.5	3.2	25.3	12.9	14.2	4.5
1981	4.4	11.5	13.6	4.6	2.7	0.5	9.5	2.9	29.1	14.9	13.3	5.0
1982	4.0	9.6	14.1	4.3	2.1	0.3	10.3	2.6	25.8	13.6	14.2	5.4
1983	4.2	11.4	14.7	4.3	2.5	0.3	10.7	2.6	26.8	13.4	15.5	5.2
1984	4.3	13.2	14.9	4.2	2.4	0.8	10.6	2.7	30.3	12.6	10.6	5.7
1985	4.2	11.8	14.0	4.4	2.6	0.4	9.5	3.1	30.7	11.7	13.2	5.2
1986	4.2	11.8	14.1	4.5	2.4	0.3	11.2	2.9	25.7	11.8	10.6	6.8
1987	4.2	13.2	12.5	4.5	2.5	0.3	7.8	2.9	28.5	12.4	10.7	5.9
1988	4.0	11.5	13.8	4.2	2.1	0.2	9.2	2.8	28.9	11.6	14.0	4.8
1989	3.9	8.8	13.4	4.1	2.4	0.4	8.5	2.9	30.3	10.9	12.0	4.4
1990	4.4	8.9	15.1	4.7	2.5	0.5	10.6	3.2	30.9	13.0	13.2	5.3
1991	5.0	11.4	16.0	5.5	3.1	0.5	11.9	4.0	28.6	13.1	15.1	6.0
1992	5.1	9.9	17.1	5.6	3.7	0.5	11.3	4.0	35.6	13.2	15.0	7.2

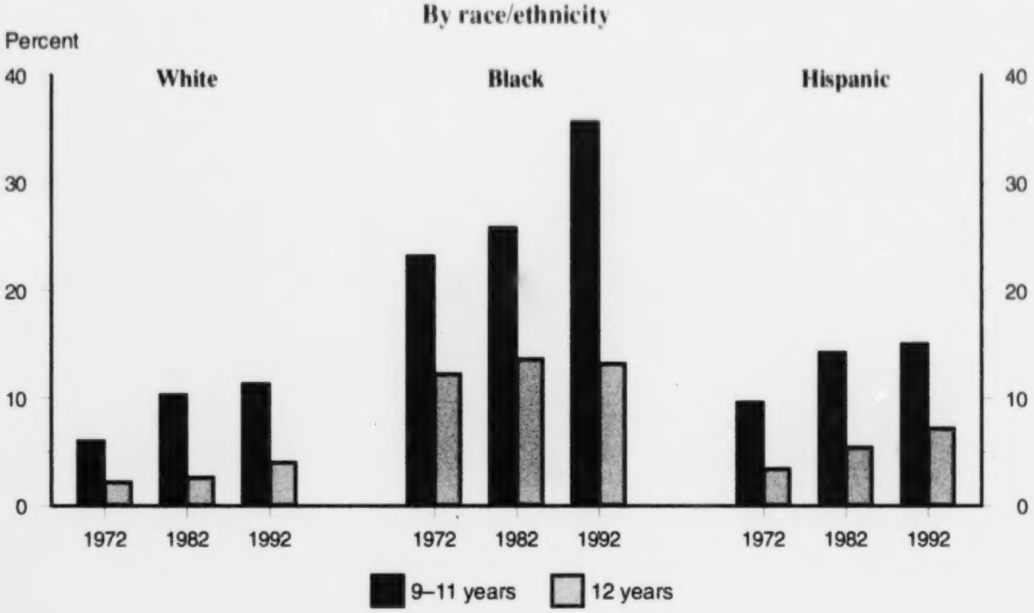
Table reads: In 1992, among persons aged 25–34 with 9–11 years of schooling, 17.1 percent received income from AFDC or public assistance. Among persons with 12 years of schooling, 5.6 received such income.

NOTE: Beginning in 1992, the Current Population Survey changed the questions used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage of persons 25–34 who received income from AFDC or public assistance, by years of schooling completed: 1972–92





SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Community service and volunteerism

- **Having some postsecondary education was clearly associated with increased levels of volunteering and giving. Adults aged 25 years and older with some postsecondary education were twice as likely as those with less education to report both volunteering their time and making charitable contributions in the last 12 months (63 and 32 percent, respectively).**

Giving of one's time or money is a measure of the degree to which citizens share responsibility for the welfare of their community. Higher education may increase a person's sense of responsibility to give back to their community in the form of community service and charitable contributions.

- **Among respondents with some postsecondary education, about one-fourth (22 percent) were identified as being generous volunteers (volunteered at least 4 hours per week in the last 12 months), compared with 12 percent with no postsecondary education.**
- **Within income levels, adults with some postsecondary education were much more likely to report volunteering than were those with no postsecondary education. This was especially apparent for low income groups (less than $20,000) where adults with some postsecondary education were nearly twice as likely to report volunteering (54 percent) than were those with no postsecondary education (27 percent).**

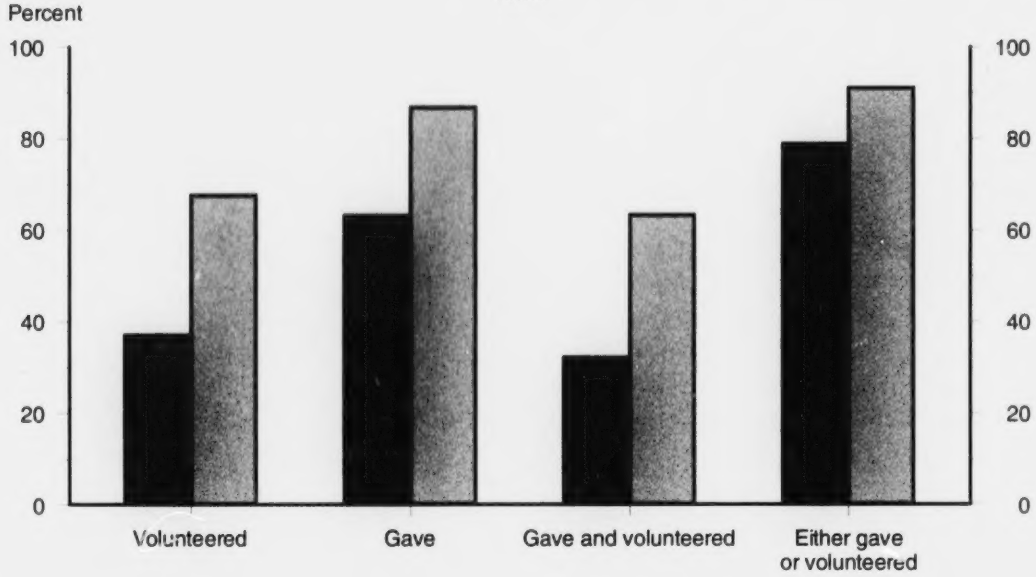
Population 25 years and older who reported volunteering and giving charitable contributions in the last 12 months, by education level and selected characteristics: 1992

Characteristics	Percent who gave and volunteered	Percent who volunteered	Average hours/week	Percent who were generous volunteers*	Percent who gave	Percent of income contributed	Percent who were generous givers*	Percent who were generous givers and generous volunteers	Percent who either gave or volunteered
Total	**46.6**	**51.4**	**4.3**	**16.9**	**74.2**	**2.3**	**14.8**	**5.0**	**78.9**
				No postsecondary education					
Total	**32.1**	**37.1**	**4.3**	**12.1**	**63.1**	**2.2**	**11.9**	**3.0**	**68.1**
Sex									
Male	25.9	31.1	2.8	6.5	59.1	2.1	11.1	1.8	64.2
Female	36.8	41.8	5.2	16.4	66.2	2.2	12.5	4.0	71.1
Employment status									
Full-time	36.8	43.4	3.1	10.4	63.7	1.5	7.0	1.9	70.3
Part-time	41.7	45.9	7.7	28.4	62.8	2.3	12.7	5.8	67.0
Not employed or retired	26.8	30.9	4.7	10.5	62.5	3.0	14.8	3.0	66.5
Annual income									
Less than $20,000	21.2	26.9	4.6	9.4	51.8	3.3	12.5	2.1	57.5
$20,000–$49,999	39.6	45.0	4.6	16.2	70.5	2.1	12.8	4.7	75.9
$50,000 or more	49.7	51.5	3.2	10.6	82.5	1.8	7.5	1.7	84.4
				Some postsecondary education					
Total	**63.3**	**67.6**	**4.3**	**22.2**	**86.8**	**2.4**	**18.2**	**7.3**	**91.1**
Sex									
Male	62.7	67.4	3.8	21.0	86.2	2.8	22.1	7.7	91.0
Female	64.0	67.8	4.8	23.4	87.4	2.0	14.2	6.8	91.2
Employment status									
Full-time	66.4	70.8	4.1	22.1	86.6	2.3	15.2	6.3	91.0
Part-time	69.5	72.7	4.8	29.7	90.9	2.7	20.3	13.3	94.2
Not employed or retired	54.4	58.6	4.5	20.1	85.7	2.6	24.6	7.6	89.9
Annual income									
Less than $20,000	42.2	53.5	3.6	16.2	71.2	4.9	24.7	6.5	82.4
$20,000–$49,999	64.3	68.8	4.1	20.9	85.5	2.4	14.9	5.9	89.9
$50,000 or more	69.8	71.5	4.7	25.6	93.6	2.3	19.1	8.8	95.3

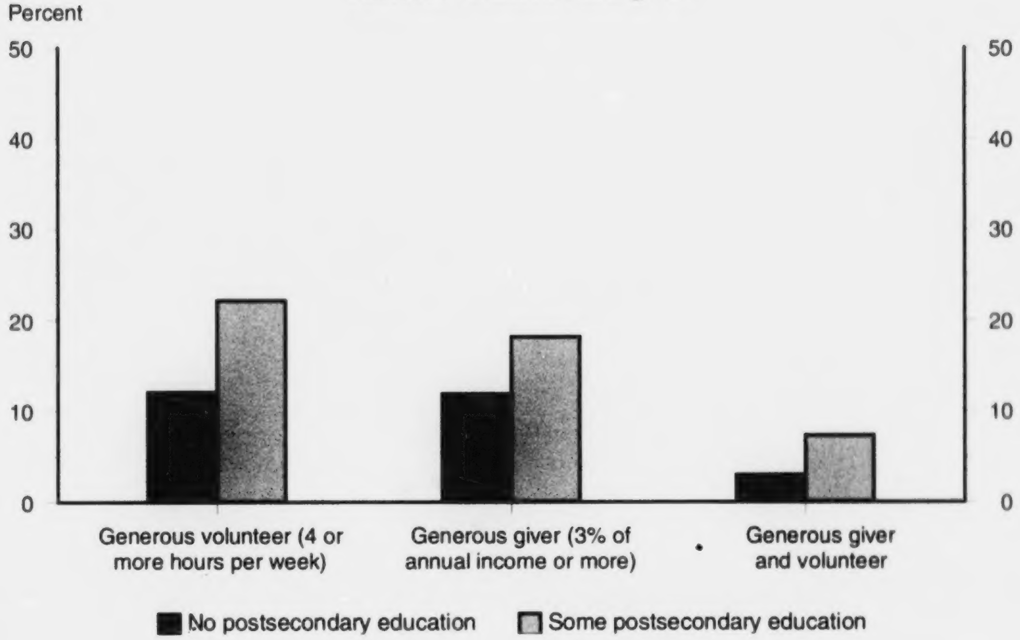
*A "generous volunteer" volunteers 4 or more hours per week; a "generous giver" donates 3 percent or more of his or her annual income.
SOURCE: Biennial Gallup Survey on Giving and Volunteering (1992), sponsored by the Independent Sector.

Percentage of population 25 years and older who reported various levels of volunteering or giving, by education level: 1992

Total



Generous volunteers and givers



SOURCE: Biennial Gallup Survey on Giving and Volunteering (1992), sponsored by the Independent Sector.

New doctoral recipients taking jobs in higher education, by field of study

New doctoral recipients have several career options, including positions in higher education; nonprofit agencies; and federal, state, and local governments, as well as positions in the private sector. Changes in the proportion of new doctoral recipients who take jobs in colleges and universities reflect both the availability of academic jobs in any given year as well as the availability of attractive positions outside of academe.

- **The proportion of new doctoral recipients with definite employment commitments* who took jobs in higher education declined substantially between the early 1970s and the early 1980s. Since then, the proportion has remained relatively stable.**
- **While all fields of study showed an overall decline in the proportion of new doctorates taking jobs in higher education between 1970 and 1993, the largest decline occurred in the fields of social and behavioral sciences (27 percentage points), life sciences (26 percentage points), and education (26 percentage points).**
- **Between 1970 and 1993, a larger proportion of those with new doctorates in the humanities had job commitments in higher education than those with doctorates in other fields; new mathematics doctoral recipients ranked second. During the same period, new doctoral recipients with the lowest proportion of job commitments in higher education included those in engineering and physical sciences.**
- **Between 1979 and 1986, approximately 50 percent of new doctorates in the field of computer sciences had job commitments in higher education. However, between 1987 and 1993, that percentage fluctuated from a high of 69 percent in 1987 to a low of 42 percent in 1992 (see supplemental table 34-1).**

Percentage of new doctoral recipients with definite employment plans in the United States who had job commitments in higher education, by field of study: Selected years of doctorate 1970–93

Year of doctorate	All fields	Humanities	Social/ behavioral sciences	Life sciences	Physical sciences	Mathematics	Computer sciences	Engineering	Education
1970	68.1	96.1	80.3	70.9	38.2	80.3	—	28.6	70.9
1972	67.7	94.0	76.6	68.8	45.5	78.7	—	27.0	63.5
1974	62.6	91.0	71.2	66.0	32.3	77.1	—	21.1	58.5
1976	60.5	90.0	66.0	61.7	31.6	77.8	—	27.0	54.7
1978	56.9	85.3	61.3	61.4	24.9	71.4	60.6	25.6	52.5
1980	52.6	80.7	54.6	53.8	20.1	72.1	47.4	26.5	50.0
1981	51.4	82.3	52.8	55.0	16.8	70.3	52.7	28.0	48.2
1982	50.3	82.7	52.5	50.3	19.2	74.6	50.4	26.2	45.9
1983	51.7	84.4	52.5	49.9	23.1	77.2	53.6	34.4	45.0
1984	50.7	81.9	50.2	45.1	22.5	79.4	50.3	31.7	43.9
1985	50.6	81.9	51.1	50.3	23.4	76.4	54.2	30.6	42.8
1986	50.3	80.4	48.9	45.8	20.6	76.5	51.3	32.6	45.0
1987	51.9	84.8	49.2	44.7	24.4	75.4	68.5	32.1	45.0
1988	51.9	82.7	50.9	49.8	23.3	81.5	58.9	32.8	44.4
1989	52.7	83.1	53.2	49.2	21.6	82.5	64.9	30.6	46.0
1990	51.9	84.9	52.8	47.1	20.8	81.1	57.1	26.0	46.8
1991	52.2	84.9	53.8	48.2	20.8	79.1	49.6	25.8	46.7
1992	51.8	85.3	52.6	45.2	22.0	77.4	42.1	23.5	46.9
1993	51.9	86.0	53.4	45.4	22.3	73.6	47.2	23.5	44.8

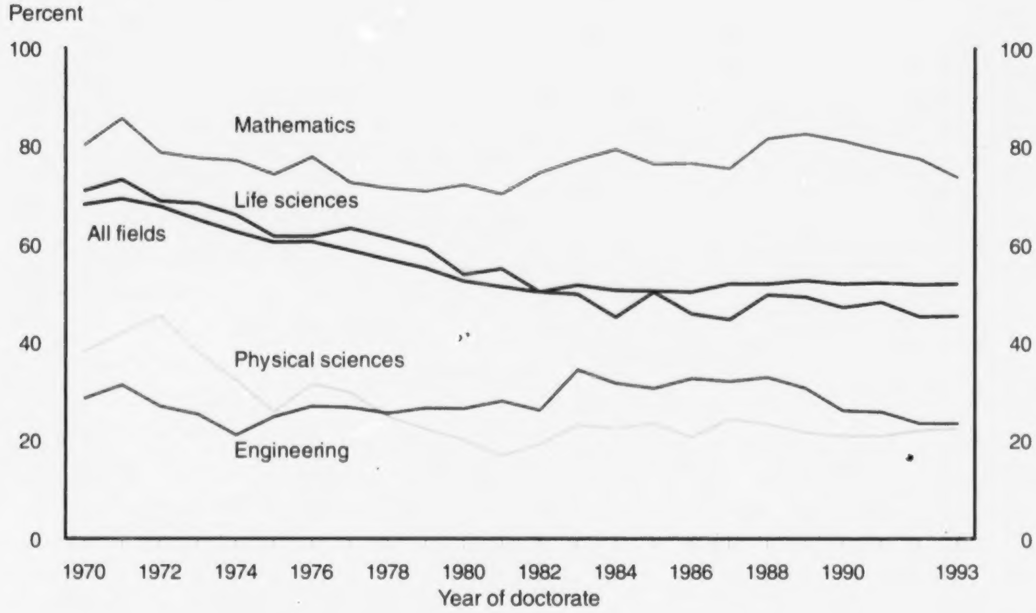
— Data not collected as a separate field of study.

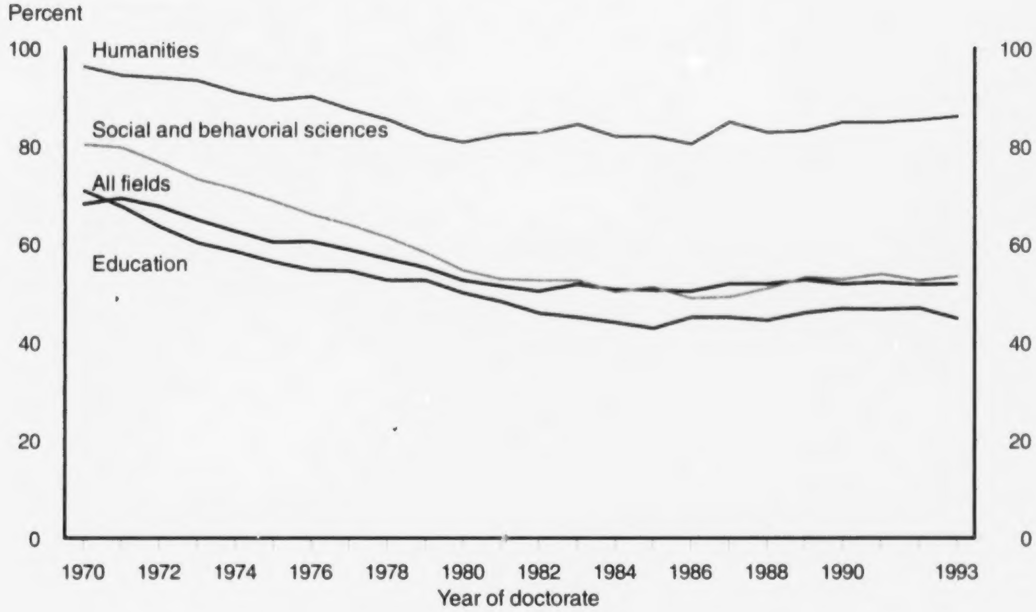
* This indicator pertains only to definite employment commitments in the United States. A "definite commitment" is defined as a signed contract, acceptance of a formal offer, etc. Employment in higher education includes positions in 4-year colleges or universities, medical schools, and junior or community colleges, with the exception of postdoctoral fellowships.

NOTE: Respondents who reported definite employment plans in higher education could be referring to teaching, research and development, administration, or other professional services.

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Percentage of new doctoral recipients with definite employment plans in the United States who had job commitments in higher education, by field of study: Years of doctorate 1970–93





SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Size, Growth, and Output of Educational Institutions

The education system must adapt to demographic changes in the population, as well as respond to changing conditions in society and the economy. In turn, these changes in the education system influence major support industries, future entries to the labor force, and future economic activity. The indicators in this section provide some evidence of changes in the size, growth, and output of educational institutions.

Enrollment

In 1993, over 63 million people in the United States, almost 1 in 4, were enrolled in elementary and secondary schools, colleges, and universities. This included about 37 million students in kindergarten through grade 8, 13 million in grades 9 through 12, 6 million in 2-year colleges, and 9 million in 4-year colleges and universities (table 35-1 and table 36-1).

Most students are enrolled in public educational institutions, but a considerable number are enrolled in private institutions. The percentage of students enrolled in private schools is high for preprimary children (62 percent), but falls for older children (12 percent in grades K–8, and 9 percent in grades 9–12, *Indicator 35* and *Indicator 37, Condition of Education 1994*). For postsecondary education, the split between public and private institutions depends strongly on the type of institution; 4 percent of enrollment at 2-year colleges but 33 percent of enrollment at 4-year colleges and universities is in private institutions (*Indicator 36*). Institutions with less-than-2-year programs are predominately private and for-profit.[1]

The amount of time spent in school changed substantially between 1970 and 1992 for those in kindergarten and higher education. The percentage of kindergartners who attend full day has more than tripled since 1970. Forty-four percent of students attended kindergarten full day in 1992 compared to 13 percent in 1970 (*Indicator 37, Condition of Education 1994*). Part-time undergraduates in colleges and universities were more prevalent in recent years (an average of 26 percent between 1987 and 1990) than they were two decades earlier (an average of 17 percent between 1967 and 1970) (*Condition of Education 1992*, table 46-5). However, almost all of the increase in the percentage of undergraduates attending part time occurred between 1970 and 1977 and has remained fairly stable since then.

Growth of Enrollment

After the end of World War II, the number of births per year reached a peak of 4.3 million in 1957. The baby boom period between 1946 and 1964 was followed by a period of declining births, which reached a low of 3.1 million in 1973. Since then, the number of births has gradually risen, reaching 4.2 million in 1990.[2] These trends are reflected, with lags, in the growth and decline of enrollments. Between 1970 and 1984, total public school enrollment fell about 15 percent; from 1984 to 1994, it rose about 13 percent (*Indicator 35*). Private school enrollment remained relatively stable during this time.

Changes in enrollment trends appear first in elementary schools, and later in secondary schools. Enrollment in public schools in kindergarten through grade 8 declined throughout the 1970s, reaching a low point in 1984, and has been rising since then (*Indicator 35*). Enrollment in public schools in grades 9–12 declined from 1976 through 1990, with some minor fluctuations in the mid-1980s. It then increased between 1990 and 1994 and is projected to continue increasing past the end of the century.

In higher education, the level of enrollment is less tied to the number of births than it is in elementary and secondary schools where enrollment is nearly universal. Total enrollment in higher education rose throughout the 1970s, as would be expected, given the rising number of high school graduates. In the first half of the 1980s, it remained stable with a small drop in 1984. Enrollment rose each year between 1985 and 1992, despite the falling number of high school graduates after 1988, and then dropped slightly between 1992 and 1993 (*Indicator 36*). Two factors account for the continued growth in enrollment: increasing enrollment rates among new high school graduates (*Indicator 9*), and the increasing number of older students as the large baby boom cohorts age.

The distribution of total enrollment between public and private institutions has changed little over the last two decades. Public institutions continue to enroll nearly 8 out of every 10 students. Within the public sector, enrollment in 2-year institutions grew faster than in 4-year institutions in the late 1980s and early 1990s. As a result, 2-year institutions increased their share of public enrollment from 35 to 39 percent between 1985 and 1993.

Diplomas and Degrees

Whereas enrollment indicates the size of the educational system, completions are one measure of the quantity of education the system is delivering. Each diploma or degree awarded is one indication that the education system has made more knowledge and skill available in society. Public and private high schools awarded 2.5 million diplomas, and GED programs awarded almost a half a million equivalency credentials in 1992.[3]

At the undergraduate level, the two most common credentials are the associate's and bachelor's degrees. The number of associate's degrees, many of which are in occupationally specific fields, increased moderately during the 1980s after a period of rapid growth during the 1970s. In 1992, over 500,000 associate's degrees were awarded—26 percent more than in 1980 and 11 percent more than in 1985. The number of bachelor's degrees awarded also grew throughout the 1980s. In 1992, colleges and universities awarded 1.1 million bachelor's degrees—22 percent more than in 1980 (table 37-1).

At the graduate level, master's degrees were the most numerous type of degree awarded. In 1992, there were almost 353,000 awarded, in contrast to 74,000 first-professional degrees and 41,000 doctor's degrees. The distribution of type of degrees changed somewhat during the last half of the 1980s. Following years of negative or little growth, the number of doctor's degrees awarded rose 23 percent between 1985 and 1992. Conversely, after a long period of growth, the number of first-professional degrees awarded fell between 1985 and 1988, was stable through 1990, and then rose 4 percent between 1990 and 1992 (table 37-1). The number of master's degrees awarded was 18 percent larger in 1992 than in 1980; the number declined 5 percent between 1980 and 1984, and then increased each year after 1984.

The fields in which degrees were awarded have shifted several times over the past two decades. Since the mid-1980s, there has been a reversal of some of the earlier trends. In particular, the number of degrees conferred in the humanities, social/behavioral sciences, computer science, and business management have increased while the number conferred in physical sciences, life sciences, and engineering have decreased (*Indicator 39*). The number of bachelor's degrees earned in science and engineering peaked in the mid-1980s, but then fell in the late 1980s and early 1990s. The number of master's degrees earned in science and engineering increased throughout the 1980s and has remained fairly stable in the early 1990s, while the number of doctor's degrees conferred has been increasing steadily since 1983 (*Indicator 38*).

NOTES:

[1] U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1990 and 1987.

[2] U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1994*, table 91.

[3] U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 99 and 101.

Elementary and secondary school enrollment

- **From 1984 to 1994, total public school enrollment rose 13 percent, after falling 15 percent between 1970 and 1984; public schools continue to enroll almost 9 out of 10 children.**
- **Total private school enrollment rose 6 percent between 1970 and 1984; between 1984 and 1994, private school enrollment decreased 2 percent.**
- **Total public school enrollment is projected to rise from 45 million in 1995 to 49.7 million by 2005, an increase of 10 percent. During the same period, total private school enrollment is expected to increase 9 percent, rising from 5.7 million to 6.2 million.**
- **Between 1970 and 1993, the share of total public school enrollment increased in the South and West, while it declined in the Northeast and the Midwest.**

School enrollment is one measure of the size of the education system and of the demand for teachers, buildings, and other resources. Past trends and projected future changes in the composition of enrollment across levels of education and regions of the country, as well as between public and private schools, provide an indication of the types of teachers and other resources required. Elementary and secondary school enrollment is determined primarily by demographics, such as birth rates and immigration.

Elementary and secondary school enrollment in thousands, by control and level of school, with projections: Selected years, fall 1970 to fall 2005

	Public schools			**Private schools**		
Year/period	Grades K-12[1]	Grades K-8[1]	Grades 9-12	Grades K-12[1]	Grades K-8[1]	Grades 9-12
1970	45,894	32,558	13,336	5,363	4,052	1,311
1984	39,208	26,905	12,304	[2]5,700	[2]4,300	[2]1,400
1994[3]	44,237	31,849	12,388	5,576	4,345	1,232
	Projected			**Projected**		
1995	45,037	32,293	12,774	5,672	4,405	1,267
2005	49,651	34,703	14,948	6,200	4,734	1,486
	Percentage change			**Percentage change**		
1970-84	-14.6	-17.4	-7.7	6.3	6.1	6.8
1984-94[3]	12.8	18.4	0.9	-2.2	1.0	-12.0
	Projected percentage change			**Projected percentage change**		
1995-2005	10.2	7.5	17.0	9.3	7.5	17.3

[1] Includes most kindergarten and some nursery school students.

[2] Private school enrollment is estimated for this year.

[3] Estimates based on preliminary data.

Percentage distribution of public elementary and secondary school enrollment, by region: Selected years, fall 1970-93

Fall of year	Northeast	Midwest	South	West
1970	21.5	28.2	32.2	18.2
1975	21.6	27.4	32.7	18.3
1980	20.1	26.2	34.6	19.2
1985	18.6	25.0	35.8	20.6
1992[1]	17.6	23.9	35.9	22.7
1993[2]	17.7	23.8	35.8	22.7

[1] Revised from previously published figures.

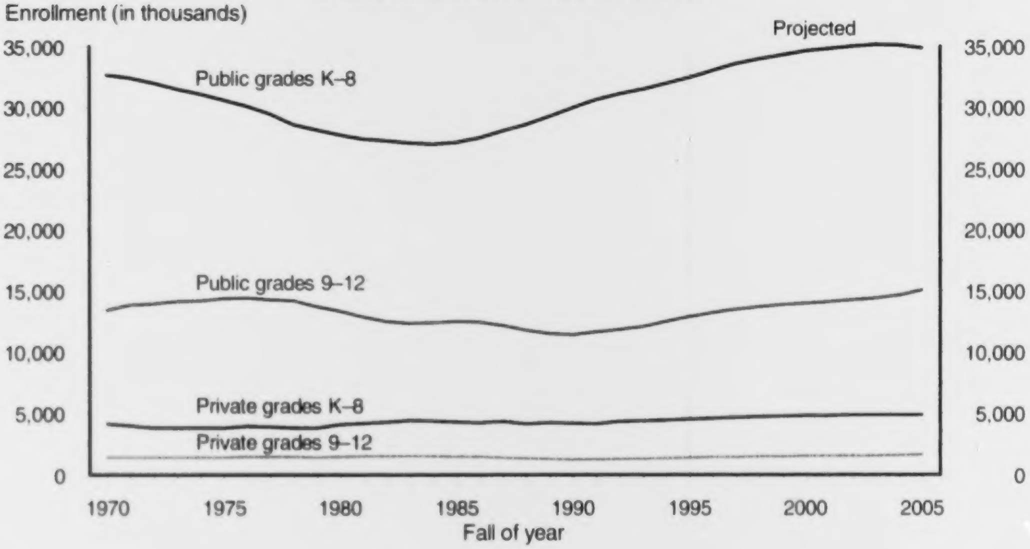
[2] Estimated.

NOTE: See the note to supplemental table 35-3 for a definition of regions. Enrollment includes a relatively small number of nursery school students.

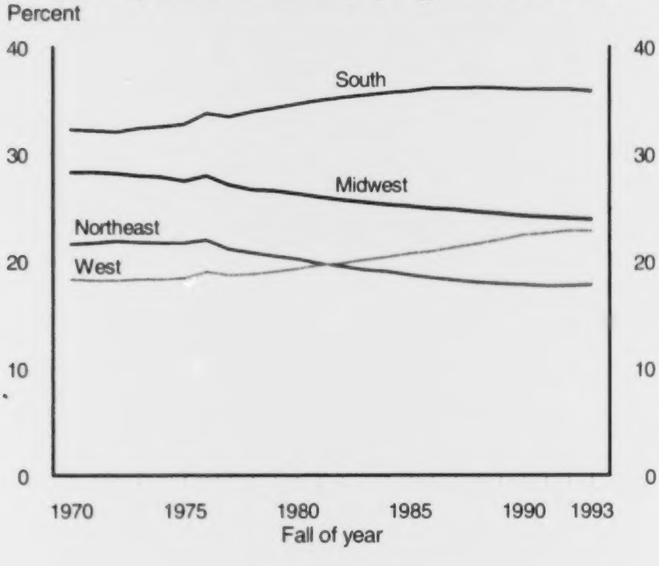
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994* (based on Common Core of Data); *Projections of Education Statistics to 2005*, 1995.

Elementary and secondary school enrollment, by control and level of school and region

Elementary and secondary enrollment, by control and level of school: Fall 1970–2005



Percentage distribution of public elementary and secondary school enrollment, by region: Fall 1970–93



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* (based on Common Core of Data) *Projections of Education Statistics to 2005,* 1995.

College and university enrollment, by type and control of institution

- **Total enrollment in public 4-year institutions increased 13 percent between 1981 and 1993. Over the same period, total enrollment in private 4-year institutions increased 16 percent.**
- **Enrollment in public 2-year institutions fell between 1982 and 1985. However, between 1985 and 1992, it increased annually, with the largest growth occurring between 1990 and 1991. Enrollment fell slightly again between 1992 and 1993.**
- **The distribution of total enrollment between public and private institutions has changed little over the last two decades. Public institutions continue to enroll nearly 8 out of every 10 students.**
- **Within the public sector, enrollment in 2-year institutions grew faster than it did in 4-year institutions during the late 1980s and early 1990s. As a result, 2-year public institutions increased their share of enrollment from 35 to 37 percent between 1985 and 1993.**

Colleges and universities offering 2- and 4-year programs under public and private control address somewhat different student needs. Fluctuations in enrollments may indicate, among other things, changes in student interest in the various kinds of services offered, changes in the cost of attendance, and changes in the availability of student financial aid.

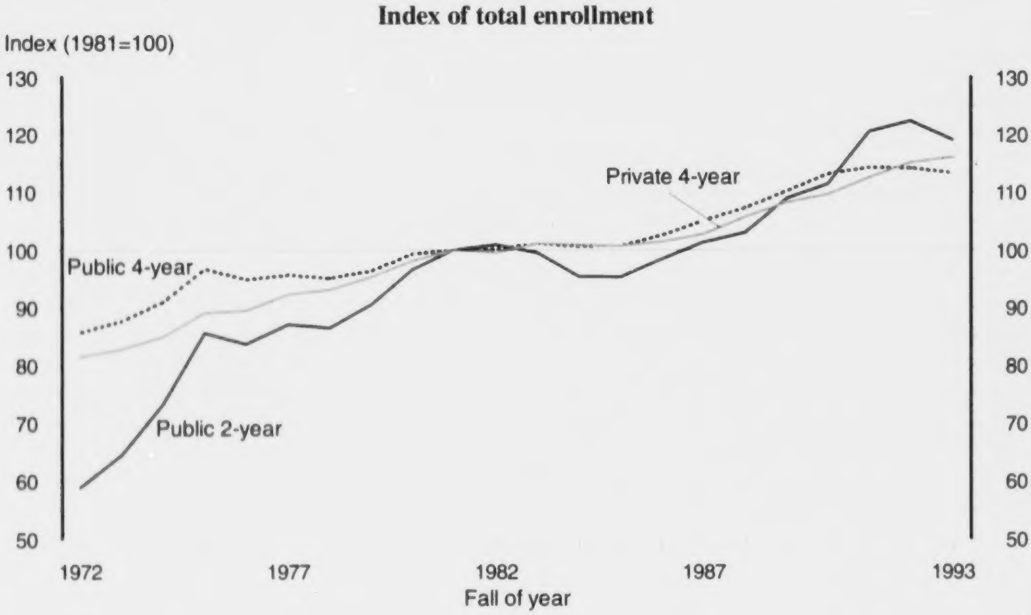
Index of total enrollment in higher education, by type and control of institution: Fall 1972–93

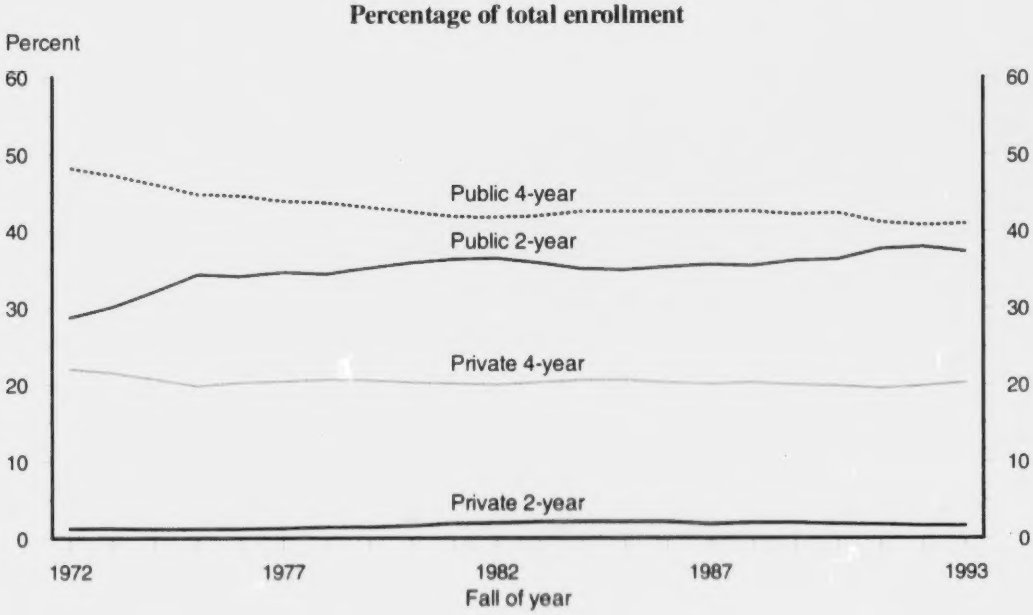
	Index of enrollment (1981=100)				Percentage of enrollment		
Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Public 4-year	Public 2-year	Private 4-year
1972	74.5	85.7	58.9	81.5	48.1	28.7	22.0
1973	77.6	87.7	64.5	82.8	47.2	30.1	21.5
1974	82.6	91.0	73.3	85.0	46.0	32.1	20.7
1975	90.4	96.7	85.6	89.1	44.7	34.3	19.8
1976	89.0	94.9	83.7	89.5	44.5	34.1	20.2
1977	91.2	95.7	87.1	92.3	43.8	34.6	20.4
1978	91.0	95.1	86.5	93.2	43.6	34.4	20.6
1979	93.5	96.4	90.5	95.3	43.0	35.1	20.5
1980	97.8	99.3	96.6	98.1	42.4	35.8	20.2
1981	100.0	100.0	100.0	100.0	41.8	36.2	20.1
1982	100.4	100.2	100.9	99.5	41.7	36.4	19.9
1983	100.8	101.1	99.5	101.2	41.9	35.8	20.2
1984	99.0	100.6	95.5	101.0	42.5	35.0	20.5
1985	99.0	100.8	95.3	100.7	42.5	34.9	20.5
1986	101.1	102.6	98.5	101.4	42.4	35.3	20.2
1987	103.2	105.1	101.3	102.8	42.5	35.6	20.0
1988	105.5	107.3	103.0	105.8	42.5	35.4	20.2
1989	109.4	110.2	109.0	108.2	42.1	36.1	19.9
1990	111.7	113.2	111.5	109.7	42.3	36.2	19.8
1991	116.1	114.3	120.6	112.6	41.1	37.6	19.5
1992	117.1	114.2	122.4	115.1	40.7	37.9	19.8
1993	115.6	113.3	119.1	116.0	40.9	37.3	20.2

NOTE: Data for 2-year private institutions are not shown separately, but are included in the total.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* tables 170 and 196 (based on IPEDS/HEGIS surveys of fall enrollment).

Index of total enrollment in higher education, by type and control of institution: Fall 1972–93





SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 170 and 196 (based on IPEDS/HEGIS surveys of fall enrollment).

Degrees conferred, by level

Trends in the number of degrees conferred, by degree levels, provide clues to changes in the productivity of the nation's higher education system, the allocation of resources within the system, and the level of trained individuals within society. Viewed in relation to the eligible population—for example, the number of high school graduates—the data show whether degrees conferred have lagged behind or exceeded growth in that population.

- **In 1992, the number of associate's, bachelor's, master's, and doctor's degrees awarded all reached their highest levels to date despite a decline in the number of high school diplomas and GED credentials awarded during most of the period since 1979.**
- **Following years of decline or little growth, the number of doctor's degrees conferred rose 23 percent between 1985 and 1992.**
- **The number of master's degrees conferred fell between 1977 and 1984 but increased each year after that, rising 24 percent between 1984 and 1992.**
- **After some period of decline in the mid-1980s, the number of both associate's and first-professional degrees grew between 1988 and 1992, 16 and 5 percent, respectively.**

Index of the number of degrees conferred, by degree level and the number of high school completions (1981=100): Academic years ending 1971–92

Academic year ending	Associate's degrees	Bachelor's degrees	Master's degrees	Doctor's degrees	First-professional degrees[1]	High school diplomas and GED recipients[2]
1971	60.7	89.8	77.9	97.4	52.7	—
1972	70.2	94.9	85.1	101.2	60.3	—
1973	75.9	98.6	89.1	105.5	69.5	—
1974	82.6	101.1	93.7	102.6	74.8	96.0
1975	86.5	98.7	98.9	103.4	77.7	99.0
1976	94.0	99.0	105.4	103.4	87.1	99.2
1977	97.6	98.3	107.2	100.8	89.4	99.4
1978	99.0	98.5	105.4	97.5	92.5	100.0
1979	96.7	98.5	101.8	99.3	95.7	101.0
1980	96.3	99.4	100.8	99.0	97.5	100.4
1981	100.0	100.0	100.0	100.0	100.0	100.0
1982	104.4	101.9	99.9	99.2	100.1	99.2
1983	109.6	103.7	98.0	99.4	101.6	95.6
1984	108.7	104.2	96.1	100.8	103.4	91.0
1985	109.2	104.7	96.8	100.0	104.3	88.1
1986	107.1	105.6	97.6	102.1	102.7	87.5
1987	[3]104.8	106.0	[3]97.8	[3]103.3	[3]99.5	89.4
1988	104.5	106.4	101.2	105.8	98.3	[3]90.7
1989	104.9	108.9	105.0	108.4	98.5	[3]87.9
1990	109.3	112.4	109.7	116.4	98.7	[3]85.4
1991	115.7	117.0	114.0	119.2	100.0	[3]84.5
1992	121.1	121.5	119.3	123.4	103.0	83.4

— Not available.

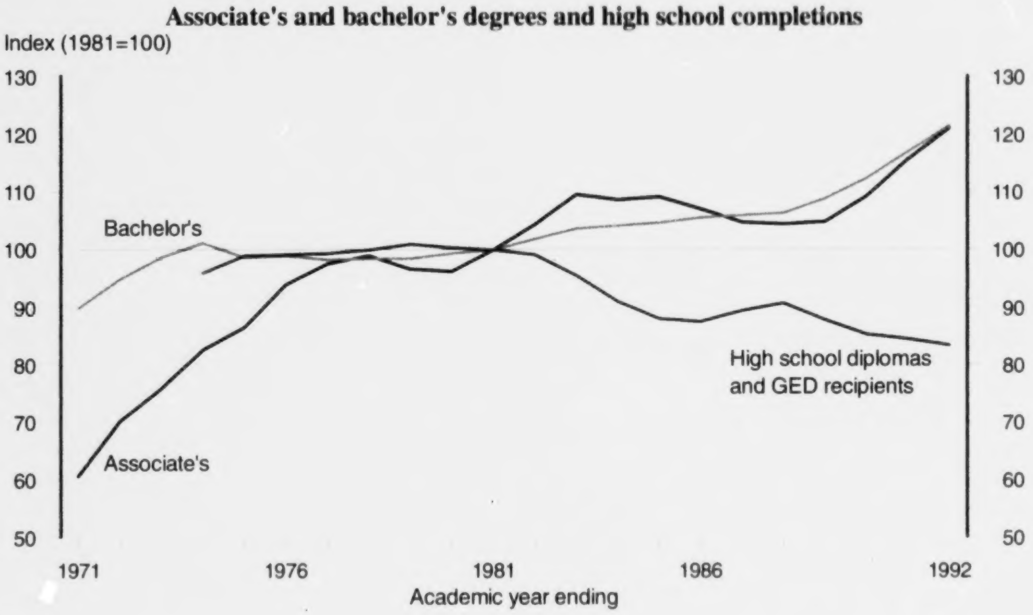
[1] Includes degrees in law, medicine, dentistry, and theology. See Glossary for a full definition.

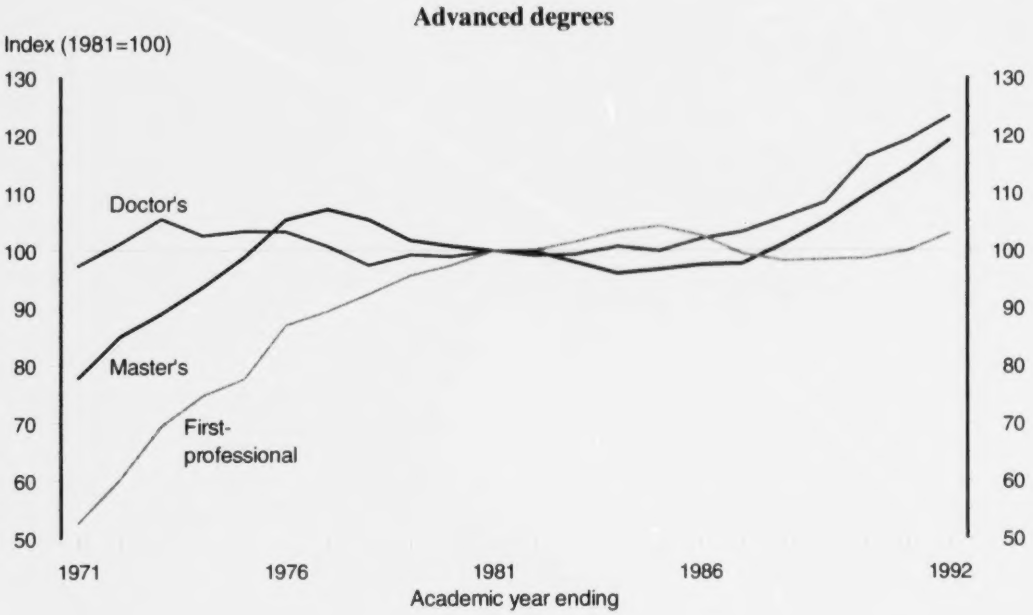
[2] "High school diplomas and GED recipients" are the graduates of regular public and private day school programs and the recipients of GED credentials. Data for GED recipients are not available before 1974.

[3] Revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 99, 101, and 234 (based on IPEDS/HEGIS surveys of degrees conferred and Common Core of Data; American Council on Education, annual GED surveys).

Index of number of degrees conferred, by degree level and number of high school completions (1981=100): Academic years ending 1971-92





NOTE: High school completers are the graduates of regular public and private day school programs and the recipients of GED credentials. Data for GED recipients are not available before 1974.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* tables 99, 101, and 234 (based on IPEDS/HEGIS surveys of degrees conferred and Common Core of Data; American Council on Education, annual GED surveys).

Science and engineering degrees conferred

- **The number of bachelor's degrees earned in the science and engineering fields peaked in the mid-1980s, representing 22 percent of the total number of bachelor's degrees conferred in 1986. Since then, the number of science and engineering degrees conferred has fallen, reaching 16 percent of total bachelor's degrees conferred in 1992 (see supplemental table 38-2).**
- **The number of science and engineering master's and doctor's degrees conferred grew faster than the total number of master's and doctor's degrees between 1981 and 1992. However, in 1992, science and engineering master's and doctor's degrees made up approximately the same percentage of total degrees as they did in 1971 (see supplemental table 38-2).**

Concerns about the nation's economic competitiveness have focused attention on the study of science and engineering in our educational institutions. Trends in science and engineering degrees are one indicator of the changing opportunities in the job market as well as the increasingly technical marketplace.

- **The percentage of master's degrees conferred in the natural sciences and engineering to foreign students rose sharply from 16 percent in 1977 to 30 percent in 1992. The percentage of doctor's degrees conferred in the same fields rose from 19 percent in 1977 to 43 percent in 1992 (see supplemental table 38-4).**

Index of the number of degrees conferred and the percentage of total degrees conferred in the natural sciences and in computer sciences and engineering, by degree level and field of study: Selected academic years ending 1971-92*

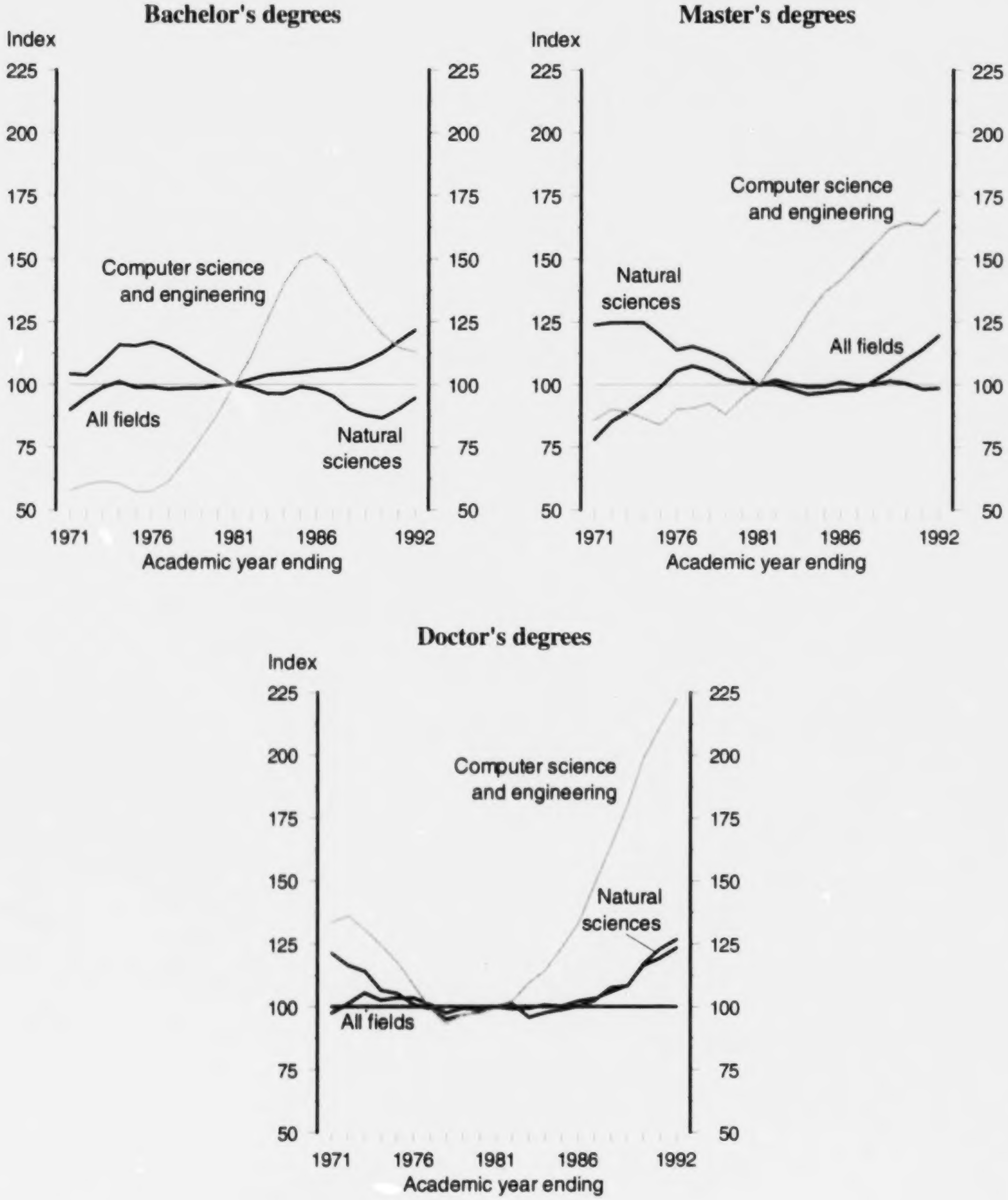
Field of study	1971	1976	1981	1986	1991	1992
			Index of number of degrees (1981=100)			
Bachelor's degrees						
All fields	89.8	99.0	100.0	105.6	117.0	121.5
Total science and engineering	79.7	85.4	100.0	127.4	103.7	104.8
Natural sciences	104.4	117.1	100.0	98.5	90.6	95.0
Computer sciences and engineering	58.2	57.7	100.0	152.6	115.1	113.3
Master's degrees						
All fields	77.9	105.4	100.0	97.6	114.0	119.3
Total science and engineering	101.6	100.1	100.0	125.5	137.2	140.9
Natural sciences	124.1	114.1	100.0	101.3	98.5	98.8
Computer sciences and engineering	86.2	90.5	100.0	142.1	163.8	169.7
Doctor's degrees						
All fields	97.4	103.4	100.0	102.1	119.2	123.4
Total science and engineering	124.9	103.4	100.0	109.5	147.1	153.0
Natural sciences	121.6	101.3	100.0	100.7	123.4	127.3
Computer sciences and engineering	133.9	109.0	100.0	133.5	211.4	222.9
			Percentage of total degrees			
Bachelor's degrees						
All fields	100.0	100.0	100.0	100.0	100.0	100.0
Total science and engineering	16.0	15.6	18.0	21.8	16.0	15.6
Natural sciences	9.8	9.9	8.4	7.8	6.5	6.6
Computer sciences and engineering	6.2	5.6	9.6	13.9	9.5	9.0
Master's degrees						
All fields	100.0	100.0	100.0	100.0	100.0	100.0
Total science and engineering	15.5	11.3	11.9	15.3	14.4	14.1
Natural sciences	7.7	5.2	4.8	5.0	4.2	4.0
Computer sciences and engineering	7.8	6.1	7.1	10.8	10.2	10.1
Doctor's degrees						
All fields	100.0	100.0	100.0	100.0	100.0	100.0
Total science and engineering	40.6	31.7	31.7	34.0	39.1	39.3
Natural sciences	28.9	22.7	23.2	22.8	24.0	23.9
Computer sciences and engineering	11.7	9.0	8.5	11.2	15.1	15.4

* Because of the reclassification of Instructional Programs in 1991-92, the figures for earlier years (1971-91) have been reclassified when necessary to conform to the new taxonomy. Therefore, most figures shown are revised from previously published figures.

NOTE: Includes degrees conferred to U.S. and non-U.S. citizens.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 241, 242, and 243 (based on IPEDS/HEGIS surveys of degrees conferred).

Index of the number of degrees conferred in the natural sciences and in computer sciences and engineering (1981=100), by degree level and field of study: Academic years ending 1971-92



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 241, 242, and 243 (based on IPEDS/HEGIS surveys of degrees conferred).

Bachelor's degrees conferred, by field of study

- **After declining for several years, the number of degrees conferred in the humanities and the social and behavioral sciences has grown since the mid-1980s. Combined with business degrees, these three types of degrees have constituted half or more of all degrees conferred since 1971.**
- **The number of degrees earned in engineering declined 20 percent between 1986 and 1992, while the number of degrees earned in computer sciences also declined during this period by 41 percent.**
- **The percentage of natural science degrees dropped from about 10 percent in 1971 to less than 7 percent in 1992. A major factor in this decrease was the sharp decline in mathematics degrees between 1971 and 1981, when the number of degrees earned in mathematics decreased by more than 50 percent (see supplemental table 39-3).**
- **Business degrees grew as a percentage of all bachelor's degrees between 1971 and 1988, when they reached a peak of 24 percent. Since then, their share of total degrees has slowly fallen (see supplemental table 39-3).**

Changing opportunities within the job market affect the fields in which students choose to major. In turn, student choices of major affect the demand for courses and faculty, as well as the supply of new graduates in different fields. Trends in the number and proportion of bachelor's degrees conferred in different fields help to identify these changing conditions.

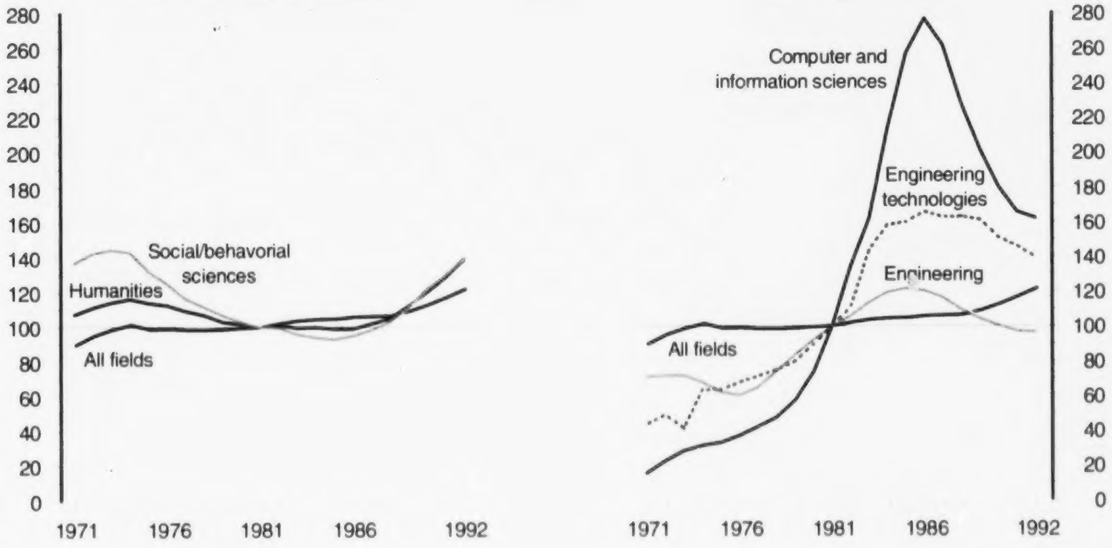
Index of the number of bachelors' degrees conferred and the percentage of total bachelor's degrees conferred, by field of study: Selected academic years ending 1971–92

Field of study	1971	1976	1981	1986	1991	1992
			Index of the number of degrees (1981=100)			
All fields	**89.8**	**99.0**	**100.0**	**105.6**	**117.0**	**121.5**
Humanities	107.1	112.4	100.0	99.0	128.6	138.7
Social/behavioral sciences	136.7	124.8	100.0	95.0	129.8	139.5
Life sciences	82.7	125.6	100.0	89.1	91.5	99.4
Physical sciences	89.4	89.6	100.0	90.7	68.2	70.8
Mathematics	218.1	142.8	100.0	150.0	133.9	129.3
Computer and information sciences	15.8	37.4	100.0	277.0	165.9	162.4
Engineering	70.9	60.7	100.0	120.4	97.2	96.7
Engineering technologies	44.0	67.8	100.0	165.9	146.2	139.5
Education	163.1	142.9	100.0	80.6	102.5	99.9
Business management	57.7	71.4	100.0	119.3	125.3	129.0
Health sciences	39.6	84.8	100.0	101.2	92.8	97.0
Other technical/professional	43.2	86.6	100.0	97.3	109.2	119.4
			Percentage of total degrees			
All fields	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Humanities	17.1	16.3	14.3	13.4	15.7	16.3
Social/behavioral sciences	23.0	19.1	15.1	13.6	16.8	17.4
Life sciences	4.3	5.9	4.6	3.9	3.6	3.8
Physical sciences	2.5	2.3	2.6	2.2	1.5	1.5
Mathematics	3.0	1.8	1.2	1.7	1.4	1.3
Computer and information sciences	0.3	0.6	1.6	4.2	2.3	2.2
Engineering	5.3	4.1	6.8	7.7	5.6	5.4
Engineering technologies	0.6	0.9	1.3	2.0	1.6	1.4
Education	21.0	16.7	11.6	8.8	10.1	9.5
Business management	13.7	15.3	21.3	24.0	22.8	22.6
Health sciences	3.0	5.9	6.8	6.5	5.4	5.4
Other technical/professional	6.2	11.2	12.8	11.8	12.0	12.6

NOTE: Because of the reclassification of Instructional Programs in 1991–92, the figures for earlier years (1971–91) have been reclassified when necessary to conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures.

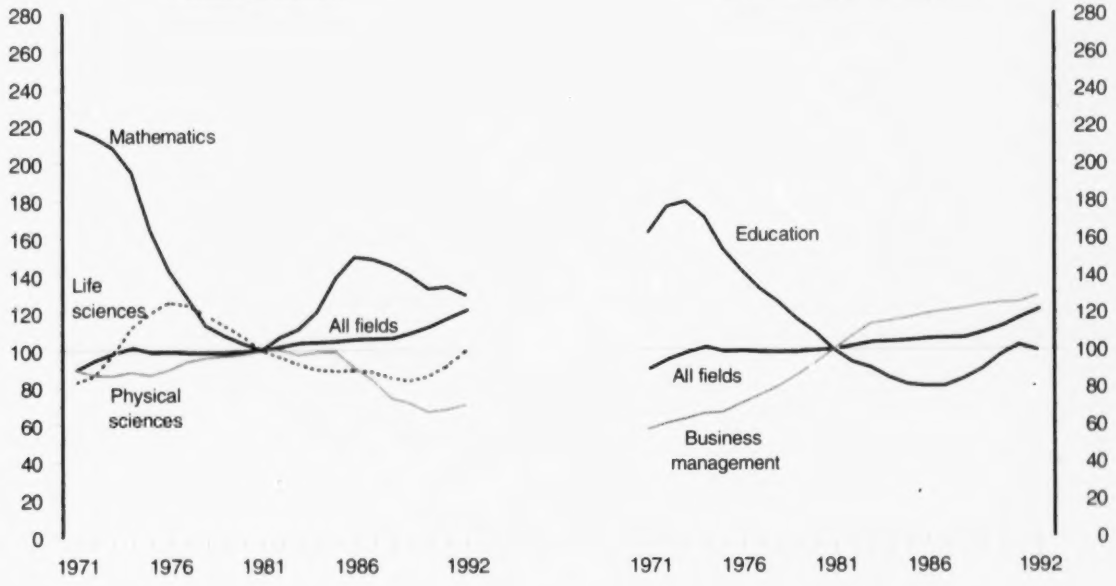
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 241 (based on IPEDS/HEGIS surveys of degrees conferred).

Index of the number of bachelor's degrees conferred (1981=100), by selected field of study: Academic years ending 1971-92



Humanities and social/behavioral sciences

Computer sciences and engineering



Natural sciences

Education and business

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 241 (based on IPEDS/HEGIS surveys of degrees conferred).

Climate, Classrooms, and Diversity in Educational Institutions

The quality of a student's education is reflected not only in the subject areas taught in school, but also in the learning environment schools provide and in the importance attached to education outside of school. A school's learning environment may be enhanced by features such as high achievement standards, opportunities to learn, programs for special populations, a safe environment, and involved parents. However, these features are too numerous to be adequately covered by a few indicators, and national data on many aspects of interest are lacking. Therefore, the indicators in this section must be viewed as only a small sampling of the indicators necessary to fully describe the learning environment of students.

Diversity of Students

Racial and ethnic diversity can bring both cultural variation and special needs to the schools. In 1993, Hispanic children ranged from 5 percent of children in public schools in nonmetropolitan areas to 22 percent of children in public schools in central cities. Black children ranged from 10 percent of students in private schools to 33 percent of children in public schools in central cities. Even though little change has occurred since 1970 in the of students in central city public schools who are black, the proportion of students who are Hispanic has been increasing in all schools (*Indicator 40*). Together, black and Hispanic students make up the majority of public school students in central cities.

Higher education institutions are less diverse than public elementary and secondary schools for two reasons: minorities make up a smaller percentage of the total population at the higher ages; and minorities, with the exception of Asians, are less likely than whites to enroll in higher education. However, the diversity of students on college campuses has been growing. For instance, the percentage of college students who are minority increased from 15 percent in 1976 to 22 percent in 1992 (*Indicator 49*). Blacks accounted for nearly 10 percent of the enrollment at colleges and universities in 1992, Hispanics 7 percent, Asians 5 percent, and American Indians 1 percent. Minorities make up a smaller percentage of the total enrollment in 4-year than in 2-year higher education institutions.

Classrooms

Programs and services offered by schools are a function not only of the needs of the students but also of the resources available to that school. A higher percentage of fourth-grade students in public compared to private schools were in schools that offered specialized programs targeted toward children with unique needs. For example, 52 percent of fourth-grade public school students were in schools that offered English as a second language compared to 14 percent of private school students. Similarly, 92 percent of public school fourth-graders were in schools that offered handicapped programs compared to 25 percent of private school students. Higher percentages of students in public versus private schools were in schools that offered gifted programs, medical care, and remedial classes, regardless of age (*Indicator 41*).

One aspect of the quality of a student's higher education is the experience and expertise of the faculty with whom a student has contact. Courses in colleges and universities are taught by faculty ranging from instructors to full professors who are likely to have a wide range of experience and expertise. For these reasons, it is useful to consider what percentage of a student's classroom exposure is to senior faculty (full and associate professors). At research institutions, about two-thirds of a student's classroom exposure to faculty is with senior faculty, and it is closer to one-half at doctoral, comprehensive, and liberal arts institutions (*Indicator 50*). However, it is also important to consider the size of the classes in which this exposure takes place. Only 5 percent of lower division classes at liberal arts institutions have more than 50 students compared to 33 percent at research institutions (table 50-1).

Climate

The learning climate both reflects and influences the behavior of students and is affected by events within and outside of the school. Students must be physically present at school in order to learn, so tardiness, absenteeism, and mobility can detract from learning. Violence and crime in schools, as well as exposure to drugs and alcohol, can also negatively affect the learning environment. Additionally, the extent to which parents are involved in their children's education can influence the likelihood that their children will be successful in school. Extracurricular activities and outside employment can also affect a student's education, both positively and negatively.

The amount of time students spend in school is important for learning. Not all students, however, make it to school every day. For example, students in public high schools were more likely than students in public elementary or middle schools to be absent from school. (Average daily school absentee rates were 8 percent for high schools, 5 percent for elementary schools, and 7 percent for middle schools.) Public high schools with a large percentage of students eligible for free lunch had higher absenteeism rates, and, in general, absenteeism was a greater problem in public central city schools (*Indicator 45*).

High mobility can also be detrimental to learning. Students who change schools are often at a higher risk of being retained in grade. Thirty-one percent of the eighth-graders in 1988 were affected by two or more school changes for reasons other than grade promotion between first grade and the middle of eighth grade (*Indicator 46*). Students from low income and non-two parent families were more likely than students from other families to change schools frequently. Violence in and around schools directly affects educators and students and can reduce school effectiveness and inhibit students' learning. The most common form of victimization at school, theft, was reported by 41 percent of 1993 seniors. The rate of violence does not seem to be increasing, as little change occurred in the student victimization rates for seniors between 1976 and 1993. Rates did not vary for blacks and whites, except that a higher percentage of black than white seniors reported being threatened or injured with a weapon at school (*Indicator 47*).

Drugs and alcohol affect the climate of the school by interfering with the learning process. In-school drug and alcohol use has fallen dramatically over the past decade. For example, in 1980, 21 percent of seniors reported having used marijuana at school during the previous year, compared to 6 percent in 1993 (table 48-3). Alcohol was reported to have been used during the previous year by 76 percent of seniors in 1993, down from 85 percent in 1976. Students were more likely to encounter someone trying to sell them drugs at school in public schools and in public urban and suburban schools than in private schools or public rural schools (*Indicator 48*).

Teachers, education researchers, and policymakers advocate strong parent involvement in the education of their children. One method that schools use to build family-school partnerships is to contact the parents. Parents of 12th-grade students reported that they were more likely to be contacted by school personnel regarding the academic performance of their child than about their child's behavior (*Indicator 44*). Parents who had bachelor's degrees or higher, whose child attended private school, or whose child's achievement test scores were in the highest quartile were more likely than other parents to be contacted by school personnel about volunteering in school. Parents of students attending low poverty schools were generally more likely than other parents to be contacted concerning their child's academic performance and academic program.

In addition to developing the academic skills of students, schools promote students' social and emotional development through various means including extracurricular activities. Seventy-eight percent of high school seniors in 1992 participated in at least one type of extracurricular activity (*Indicator 43*). A large percentage of students were active in varsity sports (41 percent); fewer were in school plays, musicals, service clubs, or government (14 to 15 percent). Seniors from families in the highest socioeconomic quartile were more likely than those from lower quartiles to participate in all types of extracurricular activities, with the exception of school vocational clubs. Whites were more likely than blacks to be involved in a school play or musical, the yearbook or newspaper, or in academic clubs. In addition, white seniors were more likely than Hispanic seniors to participate in at least one extracurricular activity (84 versus 78 percent).

Students spend more time outside of school than in school, so their use of time outside of school has important consequences for their learning. In addition to participating in extracurricular activities, many students hold jobs. In 1992, about 30 percent of high school students were employed, and 11 percent reported working 20 or more hours per week (*Indicator 49*, Condition of Education 1994). An even greater percentage of students held a job while in college. In 1993, almost half of all full-time college students and 85 percent of part-time students were employed (*Indicator 51* and table 51-3). Employment among full-time college students has increased from 34 percent in 1970 to 46 percent in 1993. Full-time college students from high income families are less likely to be employed or to work as many hours as their lower income classmates. While a job or related activity could take time away from a student's studies, it may also provide the student with an education that cannot be obtained inside a classroom.

Racial and ethnic distribution of elementary and secondary students

- **Since 1970, approximately one out of every three students in central city public schools has been black. In 1993, 10 percent of the students in metropolitan-area public schools outside of central cities were black, up from 6 percent in 1970.**
- **In 1993, 2 out of every 10 students in central city public schools were Hispanic, up from 1 in 10 in 1972.**
- **Since 1981, black and Hispanic students have made up the majority of public school students in central cities (see supplemental table 40-1).**
- **In 1993, 10 percent of students in private schools were black and 7 percent were Hispanic, up from 5 percent in 1972 in each case.**

Changes in the racial/ethnic composition of students may contribute to a greater degree of heterogeneity of language and culture in our nation's schools. While a variety of backgrounds and interests of students can enhance the learning environment, it can also create new or increased challenges for the schools. Many minority students come from poor or non-English language backgrounds and may be at greater risk of not succeeding in school than other children.

Percentage of students in grades 1–12 who are black and Hispanic, by control of school and metropolitan status: 1970–93

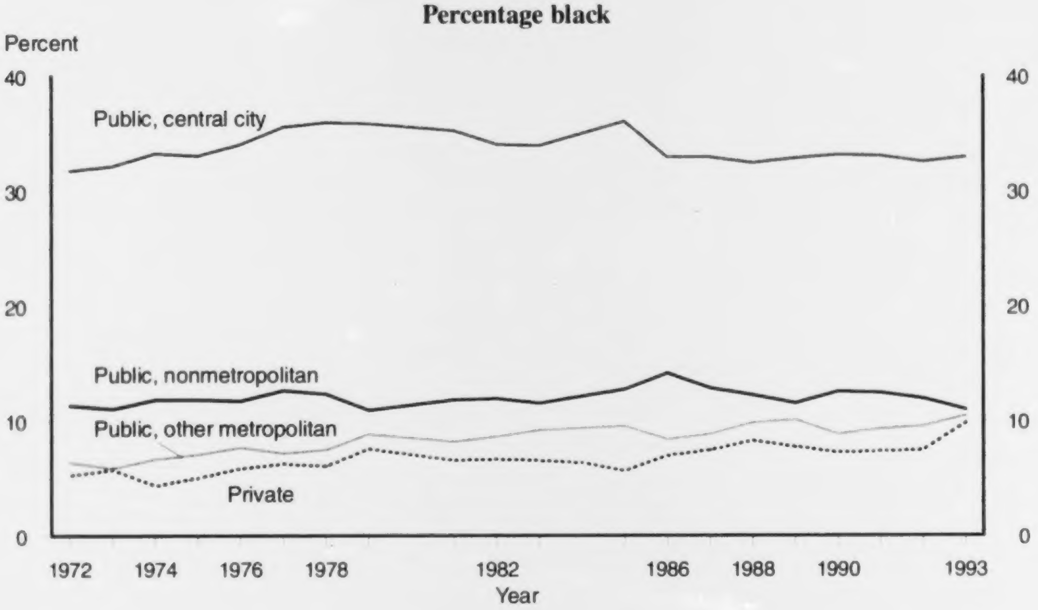
	Black					Hispanic				
	Public schools					Public schools				
Year	Total	Central cities	Other metro-politan	Non-metro-politan	Private schools	Total	Central cities	Other metro-politan	Non-metro-politan	Private schools
1970	14.8	32.5	6.2	12.0	4.7	—	—	—	—	—
1971	15.2	34.4	6.5	11.6	4.6	—	—	—	—	—
1972	14.9	31.7	6.3	11.3	5.2	5.8	10.8	4.4	3.6	4.7
1973	14.8	32.1	5.8	11.0	5.7	5.7	10.2	4.4	3.7	5.0
1974	15.4	33.2	6.6	11.8	4.3	6.2	11.4	4.4	4.4	7.3
1975	15.6	33.0	7.0	11.8	5.0	6.6	12.0	5.1	4.1	5.9
1976	16.0	34.0	7.6	11.7	5.8	6.6	11.4	5.9	3.7	5.4
1977	15.9	35.5	7.1	12.6	6.2	6.2	11.8	5.6	2.9	6.9
1978	16.1	35.9	7.4	12.3	6.0	6.4	11.9	6.1	3.0	5.2
1979	16.1	35.8	8.8	10.9	7.5	6.8	14.0	5.3	3.5	5.5
1980	—	—	—	—	—	—	—	—	—	—
1981	16.2	35.2	8.1	11.8	6.5	8.6	16.7	7.4	4.2	7.4
1982	16.2	34.0	8.6	11.9	6.6	8.7	17.7	7.0	4.3	7.3
1983	16.3	33.9	9.1	11.5	6.5	9.1	18.1	7.5	4.1	7.2
1984	16.1	—	—	—	6.3	8.5	—	—	—	5.9
1985	17.0	36.0	9.5	12.7	5.6	10.1	21.5	8.6	4.2	6.1
1986	16.7	32.9	8.3	14.1	6.9	10.6	20.2	8.3	4.1	7.0
1987	16.7	32.9	8.8	12.8	7.4	10.7	19.6	9.0	3.9	7.0
1988	16.8	32.4	9.8	12.2	8.2	10.8	19.2	9.0	4.7	6.7
1989	16.7	32.8	10.0	11.5	7.7	11.4	20.2	10.2	4.0	6.7
1990	16.5	33.1	8.8	12.5	7.2	11.6	19.8	10.8	4.0	7.2
1991	16.7	33.0	9.2	12.4	7.3	11.7	20.6	10.5	3.5	7.1
1992	16.7	32.5	9.5	11.9	7.4	11.9	20.8	10.9	3.6	7.7
1993	16.7	32.9	10.4	10.9	9.8	11.9	21.6	9.9	5.1	7.1

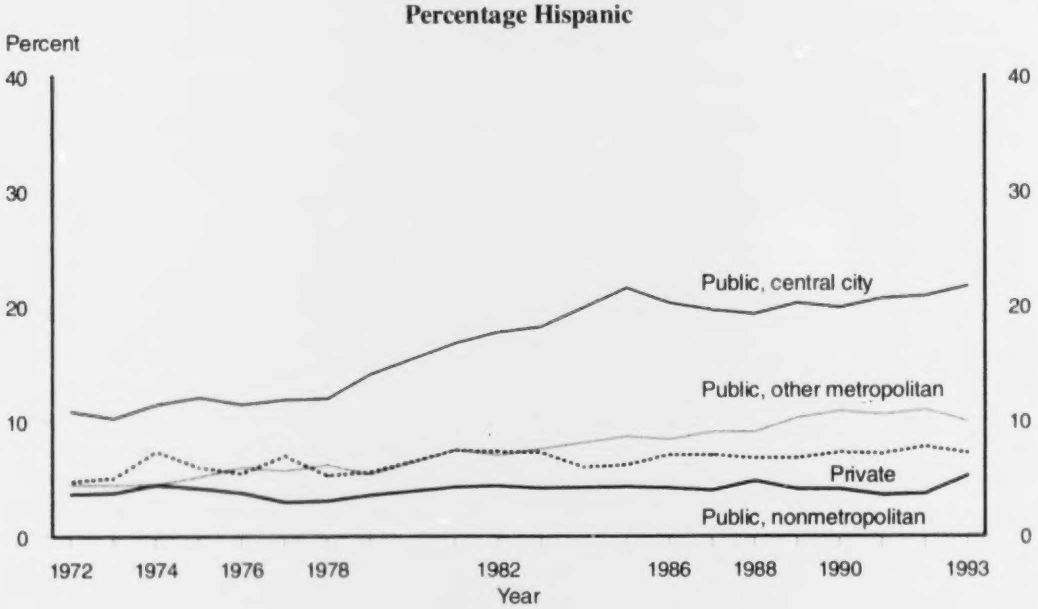
— Not available.

NOTE: Control of school was not available in 1980. Residence of students was not available in 1984. The definition of metropolitan areas in the United States was changed in 1985. A small number of black students (less than 1 percent) are also Hispanic.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment...," various years and October Current Population Surveys.

Race and ethnicity of students in grades 1–12, by control of school and metropolitan status: 1972–93





SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment...," various years, October Current Population Surveys.

Programs and services offered by schools

As schools undertake to serve increasingly diverse student bodies, both the content of the curriculum and the scope of noncurricular activities have changed. The programs and services that a particular school offers today are a function of not only the needs of the students, but also the resources available to that school. Differences in offerings across schools provide information as to how educational resources are being employed.

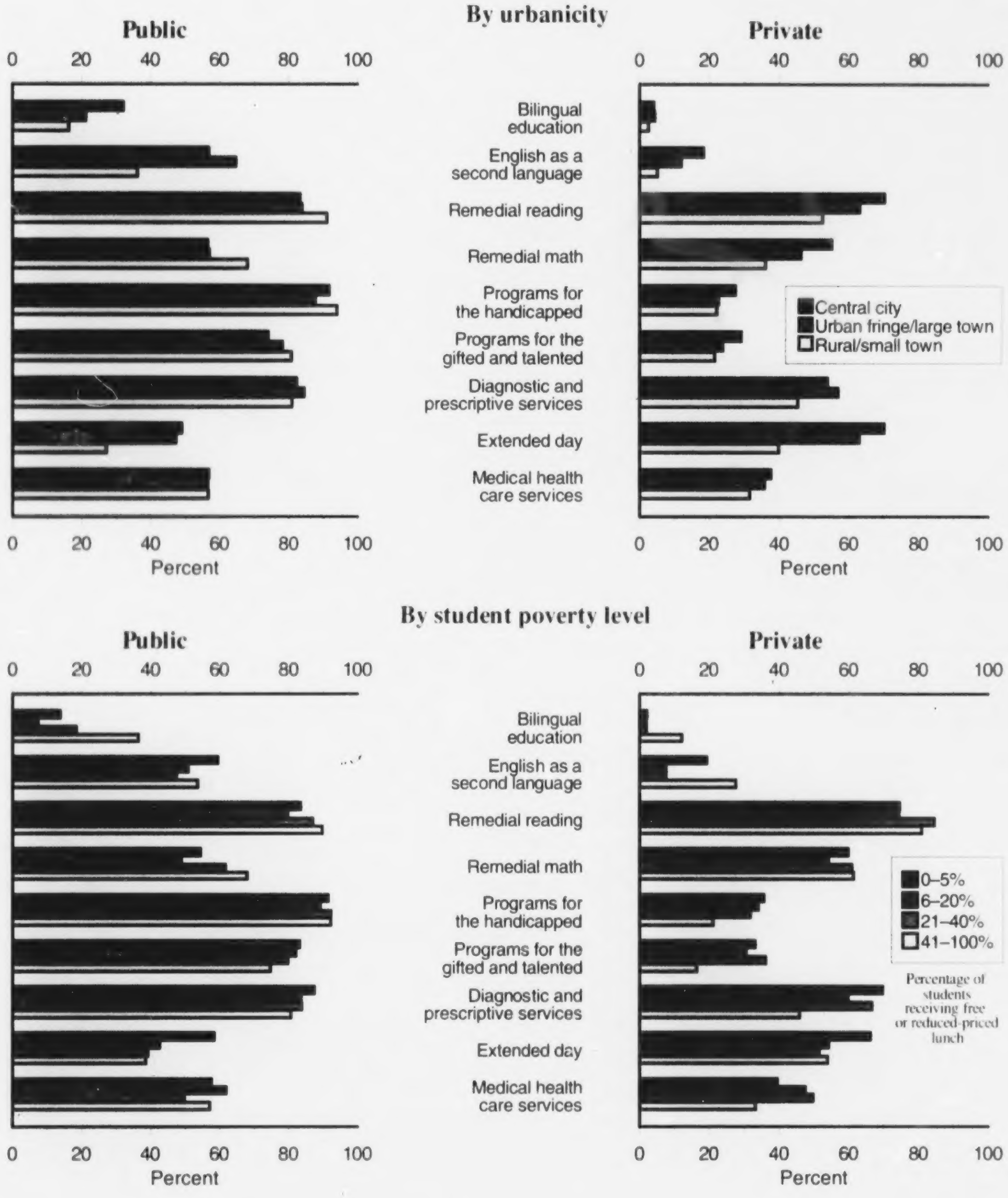
- **During school year 1993–94, public school students were more likely than private school students to have available to them certain programs for students with special needs—bilingual education, English as a second language, programs for the handicapped or the gifted and talented, and diagnostic and prescriptive services.**
- **Fourth-graders in public schools with a low poverty level (5 percent or less receiving free or reduced-price lunch) were more likely to have programs for the gifted and talented, diagnostic and prescriptive services, and extended day programs in their schools than fourth-graders in public schools with a high level of student poverty (more than 40 percent receiving free or reduced-price lunch).**
- **Public school fourth-graders in rural areas were more likely to have remedial math and reading programs in their schools, but were less likely to have an extended day program available than their counterparts in central cities or the urban fringe/large town (see supplemental table 41-1).**
- **The percentage of public school students who have various programs and services available to them varies widely by state. For example, less than 25 percent of students in Michigan and Tennessee attend schools offering medical health care services, compared to more than 80 percent of students in Delaware, New Hampshire, and New Jersey (see supplemental table 41-4).**

Percentage of fourth-grade students in schools offering various programs and services, by selected school characteristics: School year 1993–94

School characteristics	Bilingual education	English as a second language	Remedial reading	Remedial math	Programs for the handi-capped	Programs for the gifted and talented	Diagnostic and pre-scriptive services	Extended day	Medical health care services
				Public schools					
All fourth-grade students	**23.2**	**51.9**	**86.4**	**61.0**	**91.5**	**77.9**	**82.7**	**40.8**	**56.9**
Central city	32.3	57.0	83.4	56.7	91.9	74.2	82.5	49.2	57.0
Urban fringe/large town	21.3	64.8	84.0	57.2	87.9	78.4	84.6	47.4	56.7
Rural/small town	16.4	36.3	91.3	68.3	94.2	81.0	81.2	27.4	56.8
Percentage of students receiving free or reduced-price lunch									
0-5	14.0	59.6	83.5	54.6	91.6	83.3	87.6	58.5	57.8
6-20	7.5	51.1	79.9	49.0	89.3	82.2	83.7	42.6	62.1
21-40	18.6	47.7	87.1	61.7	92.3	79.9	83.9	39.3	49.9
41-100	36.6	53.8	89.8	68.0	92.4	74.8	80.9	38.7	57.4
				Private schools					
All fourth grade-students	**4.1**	**14.2**	**64.4**	**48.9**	**25.1**	**26.0**	**53.2**	**62.2**	**36.1**
Central city	4.3	18.3	69.4	54.7	27.6	29.0	53.9	70.1	37.8
Urban fringe/large town	4.5	13.1	63.2	46.9	22.5	23.7	56.5	63.0	36.3
Rural/small town	2.6	5.2	52.7	36.6	22.9	21.6	45.5	39.0	31.0
Percentage of students receiving free or reduced-price lunch									
0-5	2.6	19.8	74.3	59.8	35.9	33.0	70.0	65.9	39.7
6-20	2.1	7.8	74.6	54.4	34.4	30.5	60.1	54.1	47.7
21-40	2.1	7.8	83.4	59.9	31.4	35.5	65.7	52.2	49.0
41-100	12.6	27.5	81.4	62.5	21.5	16.2	46.7	53.5	33.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Percentage of fourth-grade students in schools offering various programs and services: School year 1993–94



SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Education of students with disabilities

- **The number of students participating in federal programs for children with disabilities increased each year between 1977 and 1993, despite a decrease in elementary and secondary enrollment during the late 1970s and mid-1980s (see supplemental table 42-1).**
- **In 1993, students with disabilities receiving services in federal programs equaled nearly 12 percent of all students enrolled in grades K–12.**
- **The percentage of disabled students identified as having learning disabilities rose 24 percentage points (from 22 to 46 percent) between 1977 and 1993, while the proportion identified as mentally retarded or with speech or language impairments each fell 16 percentage points (from 26 to 10 percent and from 35 to 19 percent of the total, respectively).**

> *The Individuals with Disabilities Education Act (IDEA) mandates that all children have available to them a free and appropriate education designed to meet their unique needs. Changes in the number and distribution of students with disabilities affect the level of effort required of educators and policymakers to comply with the current law and help them to forecast the need for future resources.*

- **During the 1991–92 school year, 95 percent of students with disabilities were taught in regular school buildings. Of these students, 95 percent of those with speech or language impairments were taught in regular classrooms and/or resource rooms compared to 12 percent of deaf-blind students. Fifty-nine percent of mentally retarded students were taught in separate classrooms in regular school buildings compared to 4 percent of students with speech or language impairments (see supplemental table 42-6).**

Children from birth to age 21 served in federally supported programs for students with disabilities, by type of disability: Selected school years ending 1977–93

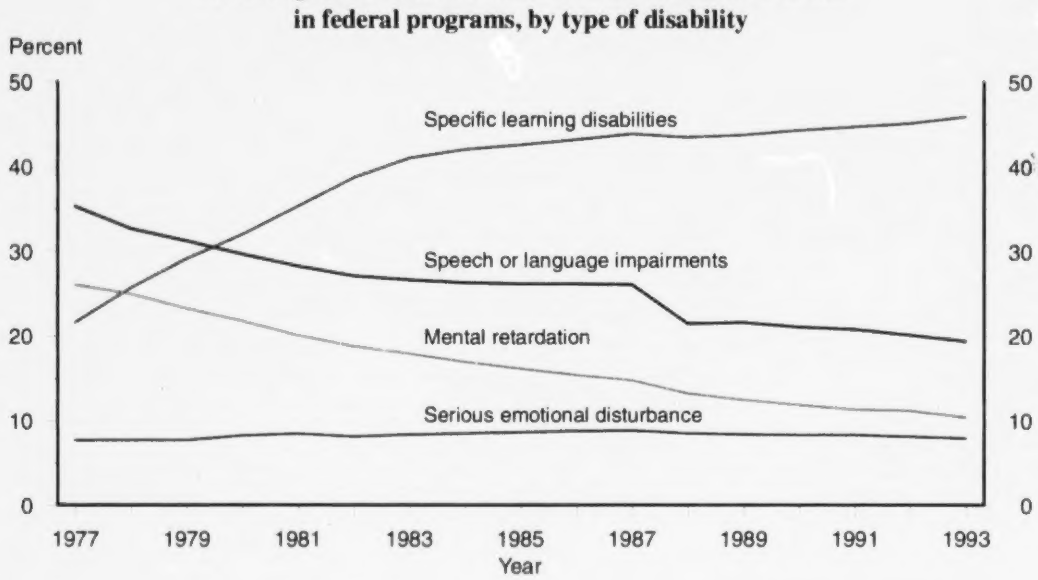
Type of disability	1977	1979	1981	1983	1985	1987	1989	1991	1993
					Percentage distribution				
All disabilities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Specific learning disabilities	21.6	29.1	35.3	40.9	42.5	43.8	43.7	44.7	45.8
Speech or language impairments	35.3	31.2	28.2	26.6	26.1	26.0	21.5	20.7	19.3
Mental retardation	26.0	23.2	20.0	17.8	16.1	14.7	12.4	11.2	10.3
Serious emotional disturbance	7.7	7.7	8.4	8.3	8.6	8.8	8.3	8.2	7.8
Preschool disabled*	(*)	(*)	(*)	(*)	(*)	(*)	8.7	9.3	10.4
					As a percentage of total public K-12 enrollment				
All disabilities	**8.5**	**9.3**	**10.3**	**10.8**	**10.9**	**10.9**	**11.2**	**11.3**	**11.9**
Specific learning disabilities	1.8	2.7	3.7	4.4	4.6	4.8	4.9	5.1	5.5
Speech or language impairments	3.0	2.9	2.9	2.9	2.9	2.8	2.4	2.3	2.3
Mental retardation	2.2	2.2	2.1	1.9	1.8	1.6	1.4	1.3	1.2
Serious emotional disturbance	0.6	0.7	0.9	0.9	0.9	1.0	0.9	0.9	0.9
Preschool disabled*	(*)	(*)	(*)	(*)	(*)	(*)	1.0	1.1	1.2

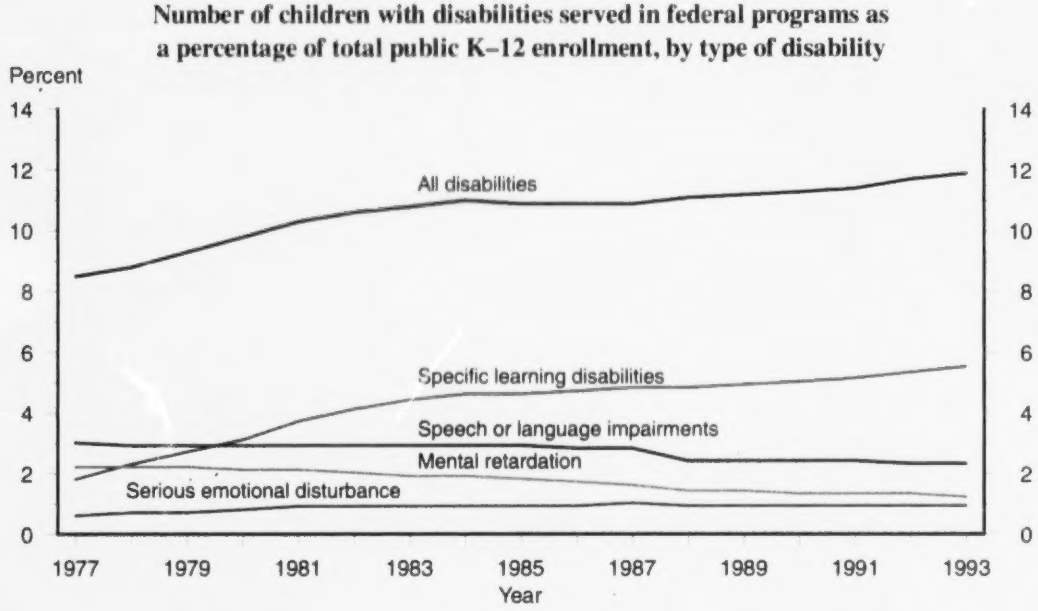
* Prior to the 1987–88 school year, these students were included in the counts by disabling condition. Beginning in the 1987–88 school year, states are no longer required to report preschool students (0–5 years) with disabilities by disabling condition.

NOTE: Includes students served under Chapter 1 of the Education Consolidation and Improvement Act (ECIA) and Part B of IDEA. Refer to supplemental tables 42-2 and 42-3 for additional disability categories.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years.

Children from birth to age 21 served in federally supported programs for students with disabilities: School years ending 1977–93





NOTE: Includes students served under Chapter 1 of ECIA and Part B of IDEA. Prior to school year 1987–88, preschool students were included in the counts by disabling condition. Beginning in the 1987–88 school year, states are no longer required to report preschool students (0–5 years) with disabilities by disabling condition.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services. *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years.

Extracurricular activities

- **Almost 83 percent of high school seniors in 1992 participated in at least one extracurricular activity. The most popular activity was varsity sports, with 36 percent of students participating.**
- **Females were more likely than males to participate in all extracurricular activities with the exception of sports.**
- **Participation in any extracurricular activity was relatively similar across racial/ethnic groups. However, blacks were more likely to be involved in school vocational clubs than whites, Hispanics, and Asians, while Asians were more likely than both blacks and Hispanics to be involved in academic clubs.**
- **Seniors in the highest socioeconomic quartile were more likely than students from the lower quartiles to participate in most extracurricular activities with the exception of school vocational clubs—students from the lowest quartile were more likely to belong to these organizations.**
- **Seniors' participation in extracurricular activities is about the same regardless of the poverty level or minority enrollment of the schools they attend (see supplemental table 43-1).**

Students spend a majority of their time outside of the classroom. How this time is spent may be an indication of the students' growth and opportunities available to them. Participation in extracurricular activities, for example, may affect academic performance, attachment to school, and social development. Almost every high school in the U.S. offers some type of extracurricular activity, such as music, academic clubs, and sports. These activities provide opportunities for students to learn the values of teamwork, a channel for reinforcing skills, and the opportunity to apply academic skills in other arenas as a part of a well-rounded education.

Percentage of high school seniors participating in extracurricular activities, by activity and selected characteristics: 1992

	Extracurricular activity									
Characteristic	Any activity[1]	Varsity sports	Intra-mural sports	School music group	School play or musical	Yearbook or news-paper	Aca-demic clubs	Student govern-ment	School service clubs	School vocational clubs
Total	**82.8**	**35.8**	**29.2**	**19.8**	**15.4**	**18.8**	**25.1**	**15.4**	**13.9**	**17.7**
Sex										
Male	81.3	43.7	38.3	15.1	14.1	14.0	22.8	13.1	10.3	14.7
Female	84.4	28.3	20.2	24.5	16.7	23.5	27.3	17.7	17.4	20.6
Race/ethnicity										
White	84.2	36.0	28.6	19.6	16.1	19.7	25.8	15.4	13.6	17.5
Black	80.1	38.5	32.5	24.4	15.9	14.3	20.7	16.7	13.6	22.5
Hispanic	77.6	31.3	27.3	16.8	10.6	16.7	22.5	14.6	14.3	16.4
Asian/ Pacific Islander	80.7	36.7	32.5	17.5	13.6	18.8	31.9	14.4	19.4	8.9
American Indian/ Alaskan Native	83.0	35.5	36.9	20.9	18.5	23.7	22.7	17.8	11.0	25.5
SES quartile[2]										
Lowest	76.3	29.2	24.8	17.6	11.4	14.3	18.7	11.0	8.4	24.8
Middle	81.9	34.2	28.8	19.6	14.8	16.9	24.1	14.7	12.5	19.6
Highest	89.3	43.9	32.5	22.0	19.4	25.1	31.1	19.8	19.6	9.9

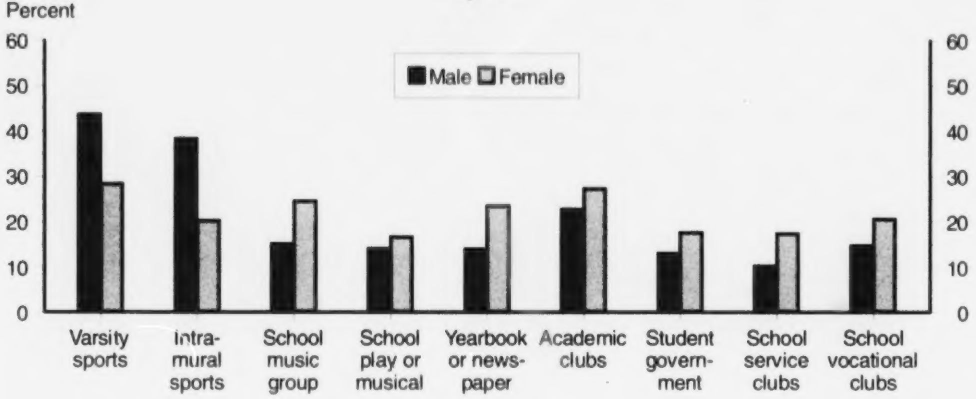
[1] Any activity is a measure of the percentage of students who reported that they had participated in at least one of the above listed activities during the school year.

[2] SES quartiles provide a relative measure of the socioeconomic status of families. The middle two quartiles were collapsed, creating a three-level SES scale with the values "lowest" (lowest quartile), "middle" (the two middle quartiles), and "highest" (highest quartile). See Glossary for further explanation.

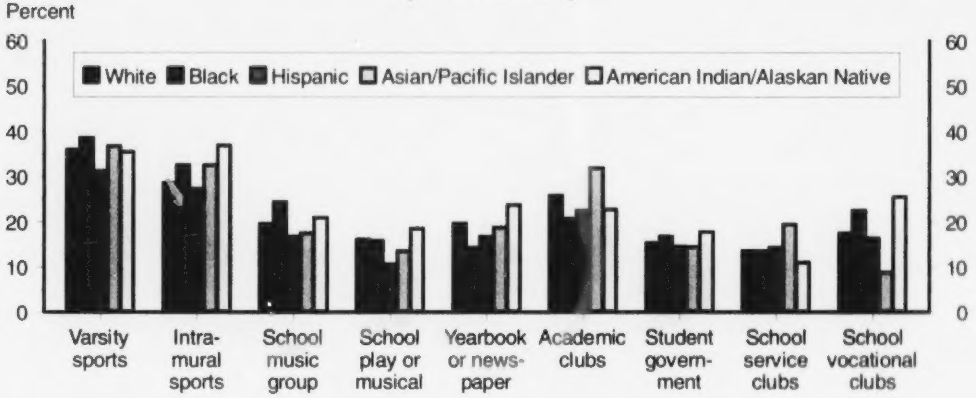
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Student Survey, 1992.

Percentage of high school seniors participating in extracurricular activities, by activity and selected characteristics: 1992

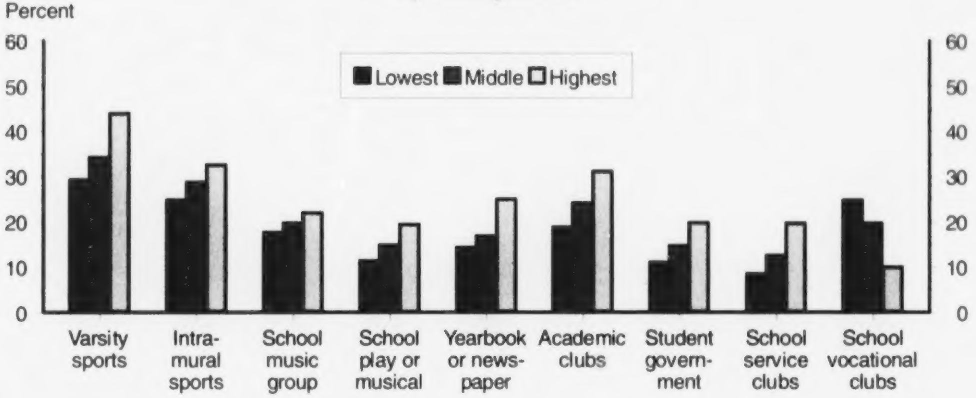
By sex



By race/ethnicity



By SES quartile



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Student Survey, 1992.

Types of contact between parents and school personnel

- **Parents of 12th-grade students reported that they were more likely to be contacted by school personnel regarding the academic performance of their child than about their child's behavior.**
- **Parents of seniors in private schools were more likely than their counterparts in public schools to be called to request volunteer services or to discuss their child's post-high school plans, while parents of public high school seniors were more likely to be contacted about their child's attendance.**
- **Parents of white seniors were more likely than those of black, Hispanic, or Asian seniors to be asked to volunteer at school. Black parents were more likely than white or Hispanic parents to be contacted by school personnel to inform them about helping their child with school work (see supplemental table 44-1).**
- **Parents of seniors in schools with 41 percent or more of students receiving free or reduced-price lunch were more likely than parents of seniors in schools with less than 5 percent of students receiving free or reduced-price lunch to be contacted regarding their child's academic performance or academic program. Parents in rural schools were the least likely to be contacted about their child's attendance, and parents in urban schools were the least likely to be contacted by school personnel requesting parent volunteers (see supplemental table 44-3).**
- **Parents who had a bachelor's degree or higher or whose child's achievement test scores were in the highest quartile were more likely to be called by school personnel regarding their child's post-high school plans and to be asked to volunteer at school than were other parents (see supplemental tables 44-2 and 44-4).**

> *When school personnel and parents communicate, they establish a stronger learning environment for the student both at home and at school. Schools contact parents for many reasons, including when their child is experiencing academic or behavioral difficulties, when the teacher wishes to discuss future plans for the child, or when the school is looking for parent volunteers. It is important to determine whether parents are being contacted only when there is a problem at school, or if school personnel are striving to develop a strong line of communication with the parents.*

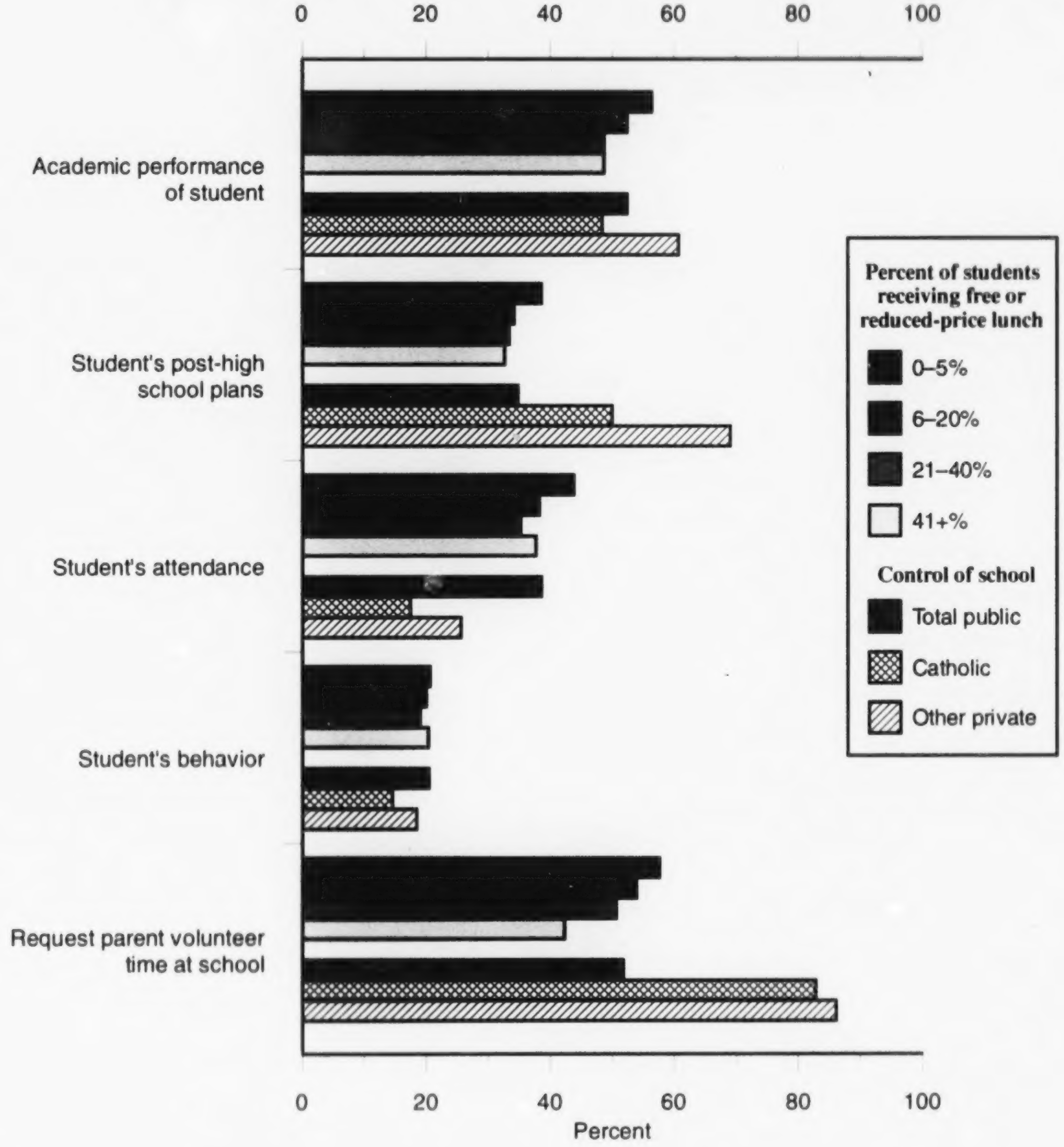
Percentage of 12th-grade students whose parents reported that school personnel contacted them at least once during the current school year, by percent of students receiving free or reduced-price lunch in public schools, control of school, and reason for contact: 1992

		Percent of students receiving free or reduced-price lunch in public schools				Control of school		
Reason school personnel contacted parents	Total	0–5%	6–20%	21–41%	41+%	Public	Catholic	Other private
Discuss:								
Student's academic performance	52.7	56.5	52.5	48.8	48.8	52.5	48.5	60.8
Student's academic program	43.8	46.6	43.2	38.8	38.7	42.9	46.1	59.0
Student's post-high school plans	37.1	38.7	34.3	33.5	32.8	34.9	50.0	69.1
Student's attendance	37.0	43.9	38.3	35.3	37.8	38.7	17.5	25.7
Student's behavior	20.1	20.7	20.1	19.1	20.4	20.5	14.6	18.5
Request parent volunteer time at school	55.0	57.8	54.0	50.[illegible]	42.4	51.9	82.9	86.2
Inform parents how to help student with school work	22.3	24.2	20.7	20.0	18.6	21.5	29.3	31.8

SOURCE: U. S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, (1992) Parent Survey.

Percentage of 12th-grade students whose parents reported that school personnel contacted them at least once during the current school year for various reasons: 1992

Percent of parents contacted, by reason for contact, percent of students receiving free or reduced-price lunch, and control of school



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Parent Survey, 1992.

Student absenteeism and tardiness

- **In 1991, the student absentee rate increased with school level and was generally greater in public central city schools.**
- **An average of 8 percent of the students in public high schools were absent on a typical day (12 percent in central cities). Forty-four percent of central city public high school teachers reported that student absenteeism was a serious problem in their schools.**

> *An important aspect of students' access to education is the amount of time actually spent in the classroom. When students are absent from school, arrive late, or cut class, they forgo opportunities to learn. Furthermore, when students disrupt classes by being late or frequently absent, they interfere with other students' opportunities to learn. And, maybe most importantly, the habits of consistent and on-time attendance are habits that will serve young people well in their future work lives.*

- **Public high schools with more than 40 percent of their students eligible for free or reduced lunches had a higher absentee rate (10 percent) than those with lower percentages of eligible students, which had absentee rates of 7 to 8 percent.**
- **In central city public high schools with more than 40 percent of the students eligible for free or reduced lunches, 55 percent of the teachers thought that absenteeism was a serious problem in their school, and 49 percent thought that tardiness was a serious problem. Thirty-six percent considered cutting class a serious problem (see supplemental table 45-2).**

Average percentage of students absent, by selected school characteristics: 1990–91

		Control of school		Public school level				Public high school % of students eligible for free or reduced-price lunch			
Urbanicity	Total	Public	Private	Elementary	Middle	High	Combined el/sec	0–5	6–20	21–40	41–100
Total	**5.9**	**6.1**	**4.9**	**5.3**	**6.6**	**8.2**	**7.5**	**7.0**	**7.4**	**7.8**	**9.6**
Central city	6.6	7.3	5.1	6.0	8.0	11.5	12.2	10.7	8.7	12.8	14.4
Urban fringe/ large town	6.0	6.2	5.4	5.4	6.6	8.8	7.9	7.4	9.2	8.3	10.6
Rural/small town	5.3	5.5	4.2	4.7	5.8	7.1	6.1	5.8	6.4	6.6	7.4

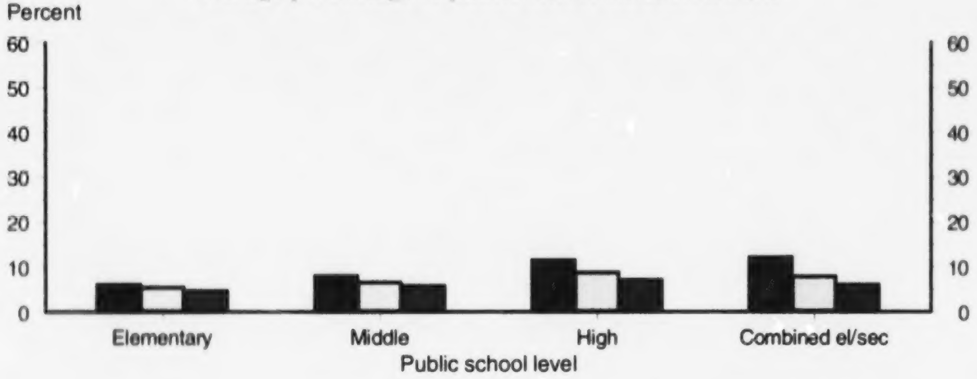
Percentage of teachers who reported that absenteeism and tardiness were serious problems in their schools, by selected school characteristics: 1990–91

		Control of school		Public school level				Public high school % of students eligible for free or reduced-price lunch			
Urbanicity	Total	Public	Private	Elementary	Middle	High	Combined el/sec	0–5	6–20	21–40	41–100
						Absenteeism					
Total	**12.7**	**14.1**	**2.6**	**6.1**	**12.7**	**28.8**	**13.3**	**17.2**	**26.3**	**38.1**	**40.1**
Central city	17.5	20.7	2.9	10.5	19.1	44.4	20.9	27.4	33.2	57.6	55.4
Urban fringe/ large town	11.6	13.0	2.3	4.9	11.1	27.5	12.8	17.4	29.7	43.8	42.0
Rural/small town	10.1	10.6	2.8	3.7	8.9	21.9	11.4	13.8	21.0	24.6	28.4
						Tardiness					
Total	**10.2**	**11.2**	**3.4**	**4.6**	**12.2**	**21.7**	**10.6**	**15.8**	**19.3**	**26.8**	**32.0**
Central city	15.5	18.1	3.7	8.9	21.8	35.7	14.6	22.7	28.9	41.6	49.2
Urban fringe/ large town	9.5	10.5	2.6	4.2	8.9	21.6	13.6	17.4	21.4	33.1	33.2
Rural/small town	6.9	7.1	3.3	2.0	7.3	14.7	8.5	11.3	13.9	15.8	19.0

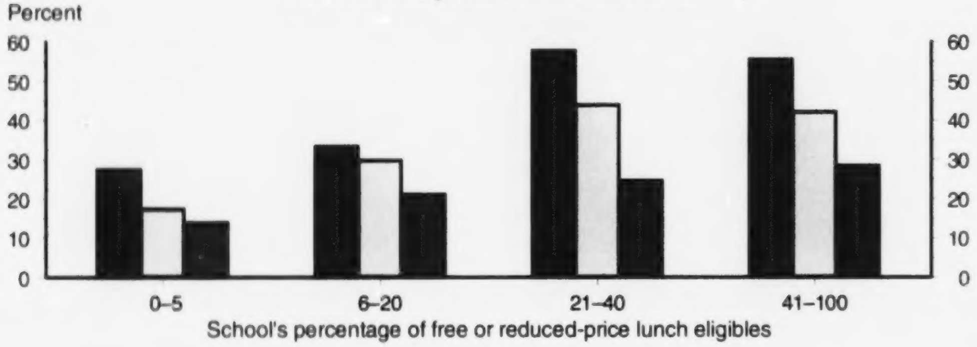
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher and School Questionnaires).

Student absenteeism and tardiness, by selected school characteristics: 1990–91

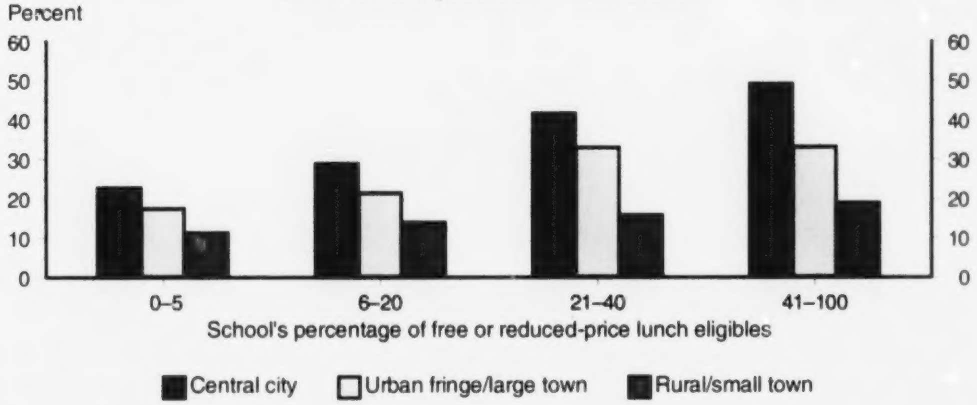
Average percentage of public school students absent



Percentage of public high school teachers who thought that absenteeism was a serious problem at their school



Percentage of public high school teachers who thought that tardiness was a serious problem at their school



SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher and School Questionnaires).

Student mobility*

- **Thirty-one percent of the eighth-grade class of 1988 changed schools two or more times after entering first grade and before the middle of eighth grade, and 10 percent changed schools two or more times between the middle of eighth grade and spring 1992.**
- **White students were less likely to move two or more times after entering first grade and before the middle of eighth grade than were Asians. Between the middle of eighth grade and spring 1992, white students changed schools less frequently than did either Hispanics or blacks.**
- **Students who lived with their mother and father during the eighth grade were less likely to have changed schools two or more times either between first grade and the middle of eighth grade or between the middle of eighth grade and spring 1992 than were students living in other types of families.**

Students change schools for academic, personal, and family-related reasons. Those who make frequent school changes can experience inappropriate placement in a new school, lack of continuity of lesson content, disruptions in social ties, and feelings of alienation. Teachers may also find it difficult to identify and meet the academic and social needs of the highly mobile student.

- **Students in low income families (under $10,000) were more likely to change schools two or more times after entering first grade and before the middle of eighth grade than were students whose annual family income equaled or exceeded $20,000.**

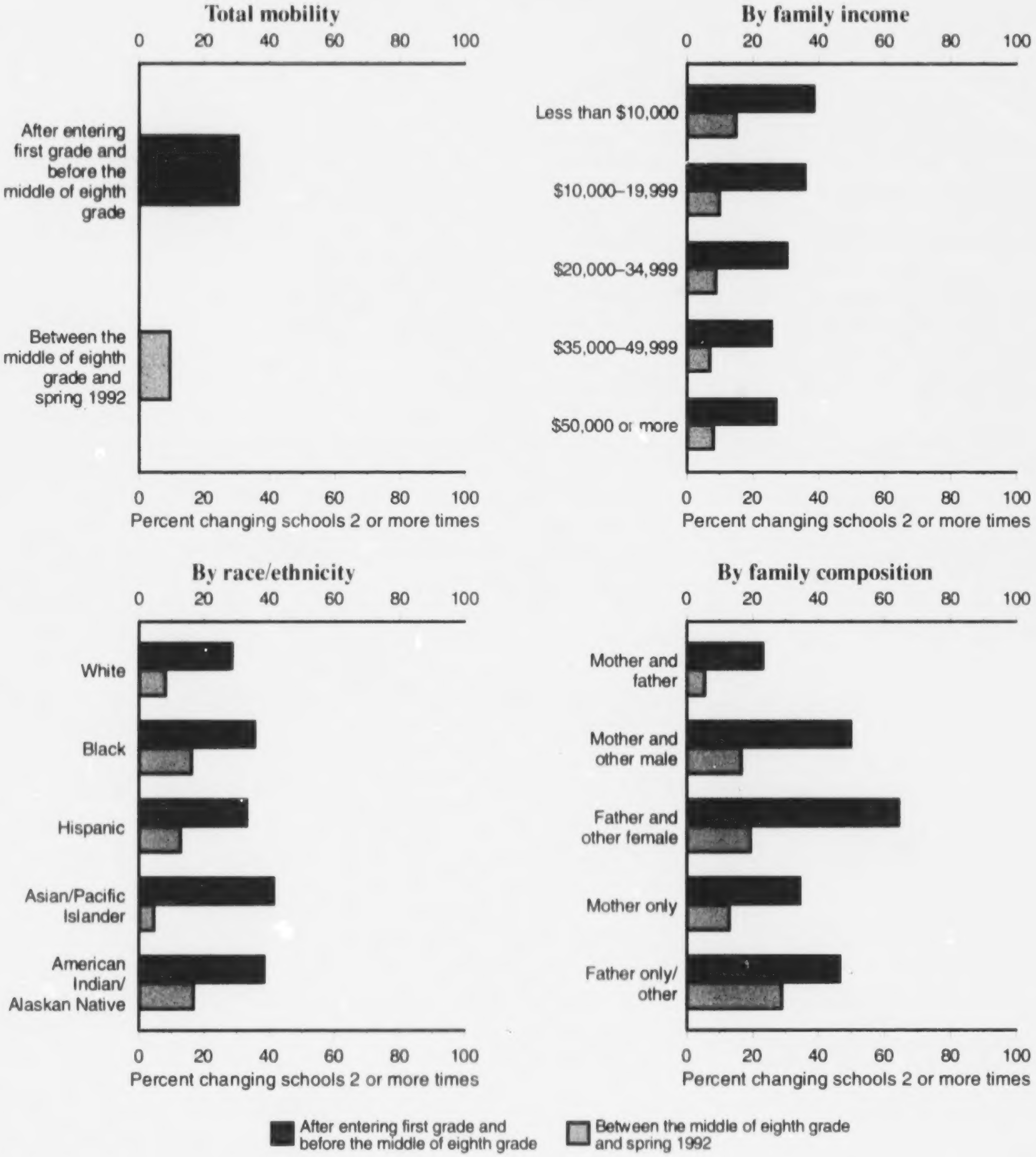
Percentage of the eighth-grade class of 1988 who changed schools between entering first grade and the middle of eighth grade and between the middle of eighth grade and spring 1992, by selected background characteristics

Background characteristics in 1988	Number of school changes after entering first grade and before the middle of eighth grade		Number of school changes between the middle of eighth grade and Spring 1992	
	Less than 2	2 or more	Less than 2	2 or more
	(Percent)			
Total	**69.4**	**30.6**	**90.2**	**9.8**
Race/ethnicity				
White	71.2	28.8	91.6	8.4
Black	64.3	35.7	83.6	16.4
Hispanic	66.7	33.3	87.0	13.0
Asian/Pacific Islander	58.5	41.5	95.1	4.9
American Indian/Alaskan Native	61.3	38.7	83.1	16.9
Family composition				
Mother and father	76.7	23.3	94.4	5.6
Mother only	65.6	34.4	87.0	13.0
Mother and other male	50.0	50.0	83.3	16.7
Father only/Other	53.4	46.6	71.0	29.0
Father and other female	35.4	64.6	80.5	19.5
Annual family income				
Less than $10,000	61.2	38.8	85.0	15.0
$10,000–19,999	64.0	36.0	89.9	10.1
$20,000–34,999	69.5	30.5	91.1	8.9
$35,000–49,999	74.2	25.8	92.8	7.2
$50,000 or more	72.7	27.3	91.8	8.2

*Mobility measures the number of times a student changed schools, excluding changes due to single grade or level promotions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988) and Second Follow-up (1992) Surveys.

Percentage of eighth-graders in 1988 who changed schools between entering first grade and the middle of eighth grade and between the middle of eighth grade and spring 1992, by selected background characteristics



NOTE: Mobility measures the number of times a student changed schools, excluding changes due to single grade or level promotions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988) and Second Follow-up (1992) Surveys.

Crime in the schools

> *Violence in and around schools directly affects educators and students by reducing school effectiveness and inhibiting students' learning. Additionally, unsafe school environments may place students who are already at risk of school failure for other reasons in further jeopardy. In recent years, educators and policymakers have voiced growing concern about possible increases in the incidences of school-related criminal behavior. Studying trends in victimization rates provides a picture of the safety of today's schools.*

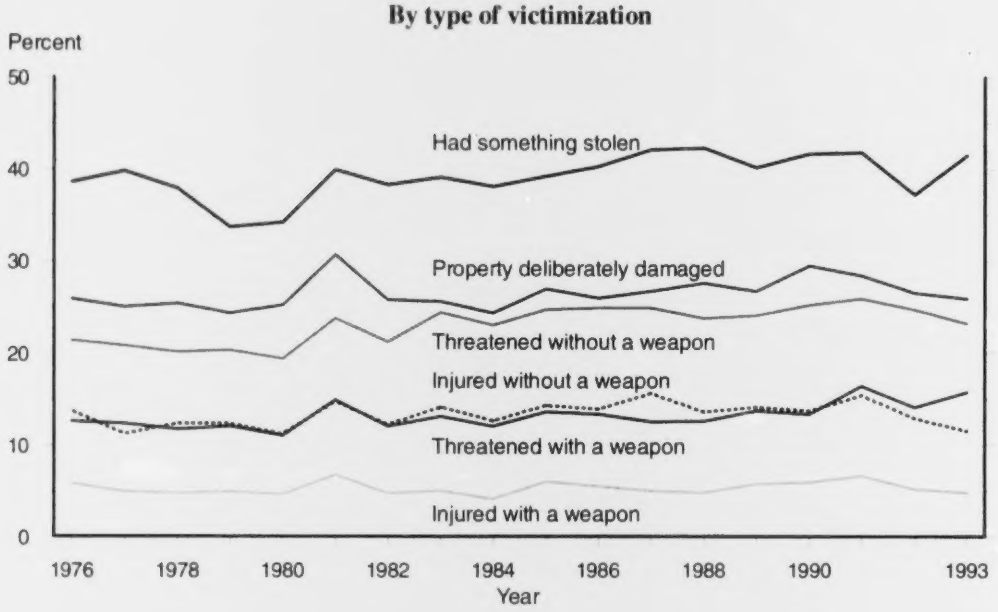
- **Victimization rates of high school seniors changed little between 1976 and 1993, with the exception of a slight increase in the percentage of students who reported being threatened both with and without a weapon. The most common type of victimization reported by high school seniors in 1993 was having something stolen (41 percent) (see supplemental table 47-1).**
- **Black and white high school seniors were about equally likely to report being victimized at school, except that blacks were more likely than whites to have been threatened or injured with a weapon. Twenty-four percent of black high school seniors reported being threatened with a weapon in 1993 compared to 14 percent of white seniors.**
- **Twelfth-grade males were more likely than 12th-grade females to report that they were threatened at school and that they got into a physical fight either at school or when going to or from school (see supplemental table 47-3).**
- **Only about 5 percent of students attended schools equipped with metal detectors. Students attending a public school, a high school, a school located in an urban area, or a school with an enrollment above 1,000 were more likely to have metal detectors or security guards in their schools than were students attending other types of schools (see supplemental table 47-4).**

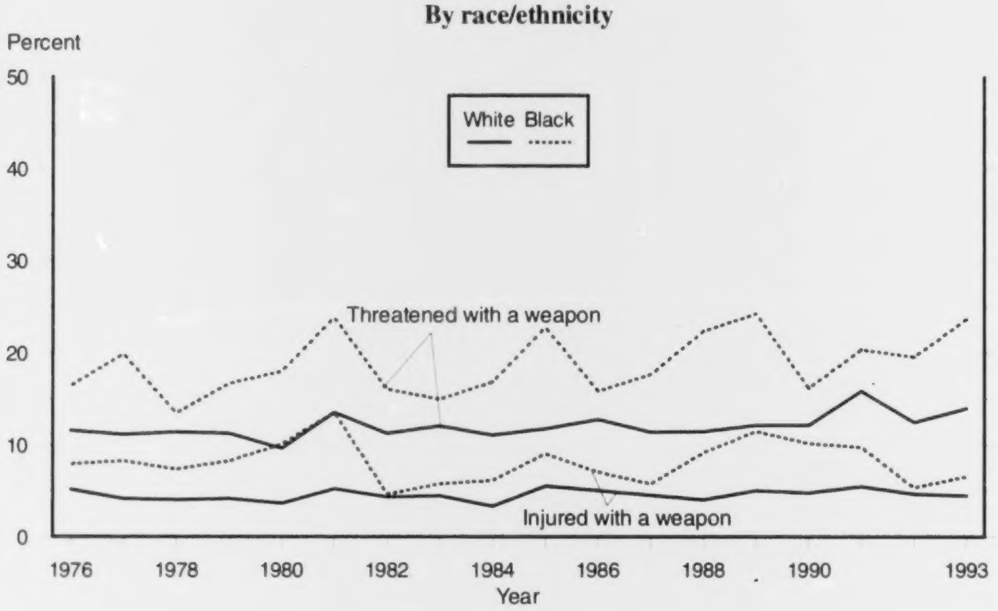
Percentage of high school seniors who reported being victimized at school, by type of victimization and race/ethnicity: 1976–93

	Had something stolen		Property deliberately damaged		Injured with a weapon		Threatened with a weapon		Injured without a weapon		Threatened without a weapon	
Year	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
1976	38.9	35.9	25.1	30.1	5.0	7.8	11.4	16.3	13.2	14.3	21.2	24.2
1977	40.4	32.8	24.3	21.0	4.0	8.1	11.0	19.7	10.6	11.4	20.2	24.2
1978	38.8	32.4	25.7	21.2	3.9	7.2	11.2	13.3	11.5	14.4	20.4	17.5
1979	34.6	27.2	24.5	20.8	4.0	8.1	11.1	16.5	11.7	9.8	20.3	17.9
1980	34.3	33.1	25.3	21.9	3.5	9.9	9.5	17.8	10.3	14.9	19.0	20.0
1981	40.1	39.2	30.4	29.8	5.1	13.4	13.4	23.7	13.8	19.1	23.6	25.0
1982	37.9	42.0	25.6	25.4	4.2	4.5	11.1	15.9	11.8	11.7	21.3	19.5
1983	39.4	39.2	25.0	23.1	4.3	5.6	11.9	14.8	13.4	13.2	23.9	24.5
1984	38.4	35.3	24.3	21.8	3.2	6.0	10.9	16.7	12.1	13.3	23.0	24.4
1985	39.3	35.2	26.6	28.0	5.4	8.9	11.6	22.6	13.6	18.2	24.5	25.2
1986	41.1	36.3	25.7	24.5	4.9	6.9	12.6	15.7	14.5	12.8	25.7	22.7
1987	42.1	39.4	27.0	25.0	4.4	5.6	11.2	17.5	15.4	15.4	25.4	20.2
1988	41.4	46.6	27.4	25.8	3.9	9.0	11.3	22.2	13.5	16.6	24.3	27.7
1989	39.4	46.4	26.0	28.9	4.9	11.3	12.0	24.1	13.7	17.8	24.5	21.0
1990	41.6	42.2	28.9	26.1	4.6	10.0	12.0	16.0	13.6	10.0	26.1	21.7
1991	41.4	44.3	28.4	24.6	5.3	9.6	15.7	20.2	15.4	17.1	26.5	27.5
1992	36.2	44.2	25.7	28.3	4.5	5.2	12.3	19.4	12.7	13.6	25.5	20.5
1993	41.6	46.0	25.8	26.3	4.3	6.4	13.8	23.5	11.0	11.5	23.8	22.3

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Percentage of high school seniors who reported being victimized at school, by type of victimization and race/ethnicity: 1976-93





SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Student drug and alcohol use

- **Drug use by high school seniors fell dramatically throughout the 1980s and early 1990s. For example, in 1994, 4 percent of seniors who report using cocaine during the previous year, down from 12 percent in 1981. Marijuana use dropped from 46 percent in 1981 to 26 percent in 1993; however, it climbed back to 31 percent in 1994.**

Drugs and alcohol interfere with thinking and can reduce academic achievement. Crimes of violence may accompany or result from substance abuse. Educators and administrators need to be able to determine the scope of the drug and alcohol problem for students. The percentage of students reporting that they have been approached at school to buy drugs is an indicator of the extent to which the school environment is directly affected by the drug problem.

- **While the percentage of high school seniors reporting alcohol use at any time during the previous year has decreased since 1979, it remains high. In 1993, 76 percent of high school seniors reported using alcohol in the previous year (see supplemental table 48-1).**
- **In 1993, 8 percent of 12th-graders and 6 percent of 8th-graders reported that they were under the influence of alcohol while at school at least 1 day in the previous month. Similar percentages (9 and 5 percent, respectively) responded that they were under the influence of marijuana or some other illicit drug while at school at least once in the past month (see supplemental table 48-2).**
- **Students in 8th grade in 1988 and 10th grade in 1990 who attended public schools were more likely to have had someone offer to sell them drugs at school than students in all three types of private schools. Such differences between schools became less pronounced in 1992.**

Percentage of high school seniors who reported using drugs or alcohol at any time during the previous year, by type of drug: Selected school years ending 1975–94

Type of drug	1975	1978	1981	1984	1987	1990	1993	1994
Alcohol	84.8	87.7	87.0	86.0	85.7	80.6	76.0	—
Marijuana	40.0	50.2	46.1	40.0	36.3	27.0	26.0	30.7
Any illicit drug other than marijuana	26.2	27.1	34.0	28.0	24.1	17.9	17.1	18.0
Stimulants	16.2	17.1	26.0	17.7	12.2	9.1	8.4	9.4
Inhalents	—	4.1	4.1	5.1	6.9	6.9	7.0	7.7
LSD	7.2	6.3	6.5	4.7	5.2	5.4	6.8	6.9
Cocaine	5.6	9.0	12.4	11.6	10.3	5.3	3.3	3.6
Sedatives	11.7	9.9	10.5	6.6	4.1	3.6	3.4	4.2
Tranquilizers	10.6	9.9	8.0	6.1	5.5	3.5	3.5	3.7

— Not available. 1994 data are not available for this trend series as the wording of the question was different in this year than in previous years.

NOTE: Only drug use that was not under a doctor's orders is included here.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study.*

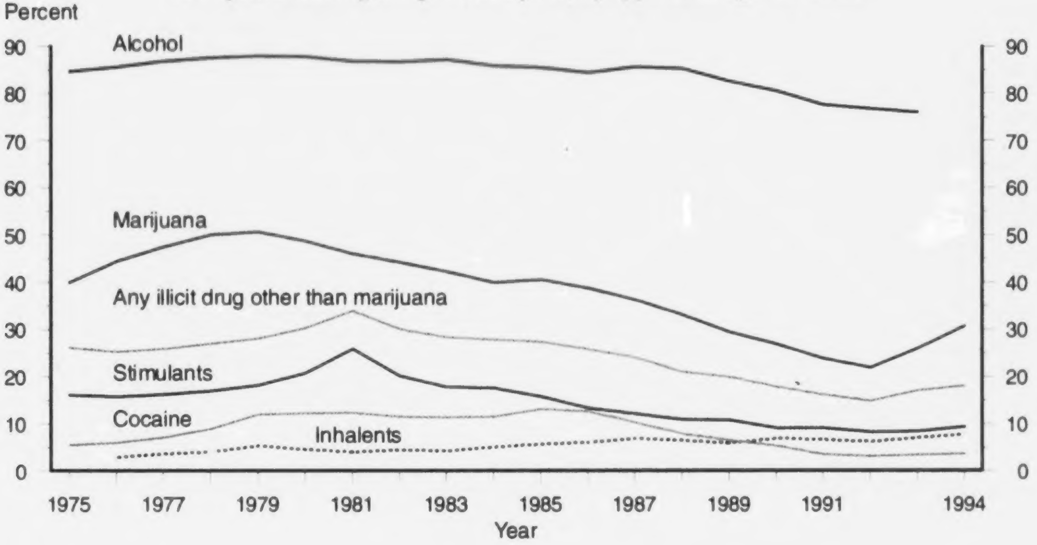
Percentage of students who had someone offer to sell them drugs at school during the first half of the school year, by grade and year, number of offers, and control of school: Spring 1988, 1990, and 1992

	8th-graders in 1988			10th-graders in 1990			12th-graders in 1992		
Control of schools	Ever	Once or twice	More than twice	Ever	Once or twice	More than twice	Ever	Once or twice	More than twice
All students	10.0	6.9	3.1	17.0	10.1	6.9	16.0	9.5	6.5
Public	11.0	7.6	3.4	17.7	10.5	7.2	16.7	9.8	6.9
Catholic	2.5	1.6	0.9	11.7	9.0	2.7	12.7	8.7	4.0
Private, other religious affiliation	2.6	1.7	0.9	2.6	1.2	1.4	3.3	2.6	0.7
Private, no religious affiliation	5.0	3.2	1.8	7.2	4.5	2.7	10.3	4.5	5.8

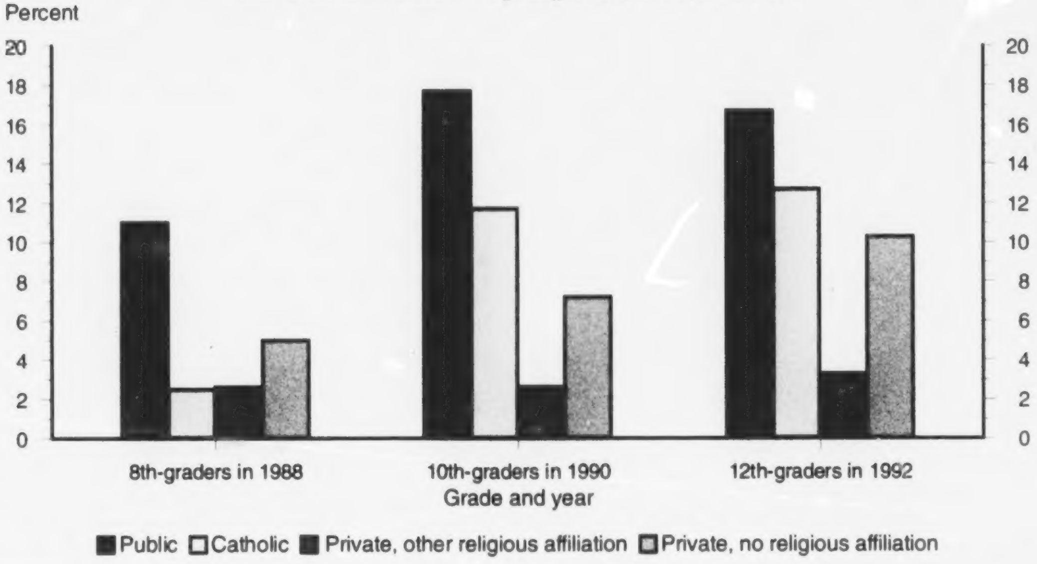
SOURCE: U. S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988), First Follow-up (1990), and Second Follow-up (1992) Student Surveys.

Student drug and alcohol use

Percentage of high school seniors who reported using drugs or alcohol at anytime during the previous year, by type of drug: 1975–94



Percentage of students who had someone offer to sell them drugs at school during the first half of the school year, by grade and year and control of school: Spring 1988, 1990, and 1992



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988), First Follow-up (1990), and Second Follow-up (1992) Student Surveys.

Racial and ethnic distribution of college students

- **The student body at the nation's colleges and universities has become increasingly heterogeneous since the mid-1970s. Minority students increased from 15 percent of all students in 1976 to nearly 22 percent in 1992.**
- **Hispanics and Asians increased as a percentage of all college students throughout the period from 1976 to 1992.**
- **Following a period of decline, the black share of enrollment has risen since 1988 to a slightly higher level than in the mid-1970s.**
- **Black students accounted for nearly 10 percent of the total enrollment at colleges and universities in 1992. Hispanics made up 7 percent, Asians 5 percent, and American Indians 1 percent of enrolled students.**
- **At 2-year public colleges, about equal proportions of the black and Hispanic students were enrolled. At 4-year colleges, however, there were about twice as many blacks as Hispanics.**

Colleges and universities seek diversity in their student bodies: variety in the backgrounds and interests of students enhances the learning environment. The racial/ethnic mix of college students is one aspect of student diversity. Variations in the racial/ethnic composition of college enrollment suggest differences in the needs, interests, and backgrounds of the student body.

Percentage of total enrollment in higher education institutions, by race/ethnicity and control and type of institution: Fall, selected years 1976–92

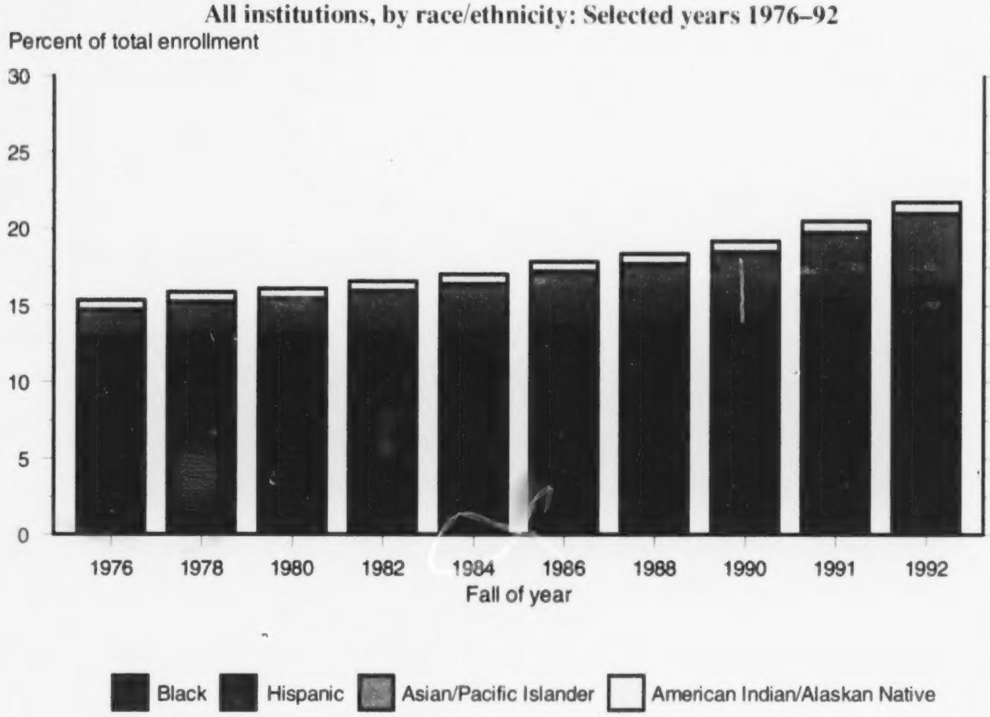
Fall of year and control and type of institution	White	Minority					Nonresident alien
		Total minority	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native	
			All institutions, by fall of year				
1976	82.6	15.4	9.4	3.5	1.8	0.7	2.0
1978	81.9	15.9	9.4	3.7	2.1	0.7	2.2
1980	81.4	16.1	9.2	3.9	2.4	0.7	2.5
1982	80.7	16.6	8.9	4.2	2.8	0.7	2.7
1984	80.2	17.0	8.8	4.4	3.2	0.7	2.7
1986	79.3	17.9	8.7	4.9	3.6	0.7	2.8
1988	78.8	18.4	8.7	5.2	3.8	0.7	2.8
1990	77.9	19.2	8.9	5.5	4.0	0.7	2.9
1991	76.5	20.6	9.3	6.0	4.4	0.8	2.9
1992	75.0	21.8	9.6	6.6	4.8	0.8	3.2
			By control and type of institution: Fall 1992				
Public	74.5	22.8	9.7	7.2	5.0	0.9	2.7
Private	76.8	18.4	9.4	4.3	4.3	0.5	4.8
4-year	77.0	19.0	9.0	4.7	4.7	0.6	4.1
Public	76.8	19.6	9.1	5.0	4.8	0.7	3.6
Private	77.2	17.7	8.9	4.0	4.4	0.4	5.1
2-year public*	72.1	26.2	10.3	9.6	5.2	1.1	1.8

* Ninety-seven percent of 2-year students are enrolled in public institutions.

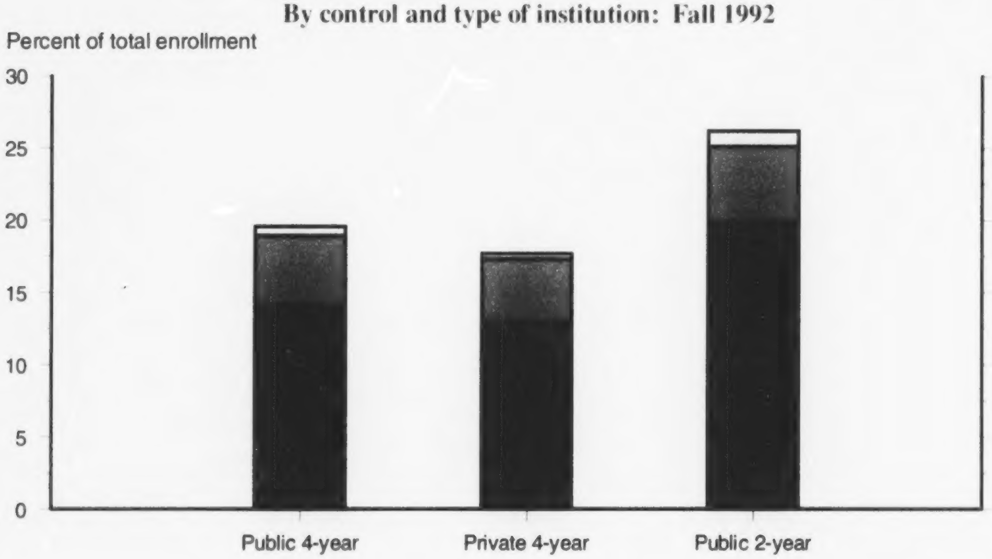
NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, IPEDS/HEGIS surveys of Fall Enrollment, various years.

Percentage of total enrollment in higher education institutions



All institutions, by race/ethnicity: Selected years 1976–92



By control and type of institution: Fall 1992

SOURCE: U.S. Department of Education, National Center for Education Statistics, IPEDS/HEGIS surveys of Fall Enrollment, various years.

Student exposure to faculty at institutions of higher education

- **At research, doctoral, and comprehensive institutions in both 1987 and 1992, the majority of classroom exposure to faculty for students in undergraduate upper division courses and graduate courses was with senior faculty—full professors and associate professors.**
- **At comprehensive institutions in 1992, undergraduate students in lower division courses had less classroom exposure to senior faculty than did students in upper division courses.**
- **Students in undergraduate courses at research institutions had about the same classroom exposure to senior-level faculty as did students in undergraduate courses at comprehensive and liberal arts institutions. However, for undergraduate students in classes taught by senior-level faculty, those at research institutions were more likely to be in classes of more than 50 students than those at comprehensive and liberal arts institutions (see supplemental table 50-1).**

An institution's most experienced faculty are its senior faculty. They have more teaching, research, and administrative experience. More contact with these faculty may enhance the quality of the learning environment for students at colleges and universities. One measure of a student's contact with senior faculty is the percentage of a student's classroom time spent with full or associate professors.

Percentage of classroom hours 4-year college and university students are exposed to faculty of different ranks, by type of institution, level of classes, and course division: Fall 1987 and fall 1992

	Fall 1987					Fall 1992				
	Type of institution and course division					Type of institution and course division				
Faculty rank	Total	Research	Doctoral	Comprehensive	Liberal arts	Total	Research	Doctoral	Comprehensive	Liberal arts
	Undergraduate, lower division courses					**Undergraduate, lower division courses**				
Full professor	30.4	33.6	[1]28.5	30.1	27.3	27.1	29.2	24.7	27.0	26.7
Associate professor	26.3	34.5	28.6	22.4	20.6	23.6	34.3	22.5	20.4	20.8
Assistant professor	20.5	16.7	19.7	20.6	29.0	22.7	13.2	27.0	24.9	23.7
Instructor	12.8	[1]4.1	17.0	16.6	12.8	17.1	12.1	17.0	18.9	18.0
Lecturer	8.1	10.6	4.9	8.7	4.5	7.4	11.1	7.4	6.9	3.8
Other	1.9	0.5	1.3	1.7	5.8	2.2	0.2	1.4	2.0	7.0
	Undergraduate, upper division courses					**Undergraduate, upper division courses**				
Full professor	31.1	36.2	31.4	29.4	24.6	32.7	35.6	30.0	33.1	28.6
Associate professor	25.5	30.6	[1]27.7	22.9	19.7	25.9	28.3	25.2	25.6	23.3
Assistant professor	25.7	18.9	24.5	27.5	38.8	23.4	21.8	25.1	23.1	25.5
Instructor	8.8	7.0	9.3	9.0	12.6	10.3	5.0	11.9	11.2	14.7
Lecturer	7.4	6.1	6.6	9.9	[1]0.6	5.7	8.9	5.1	4.6	4.7
Other	[1]1.4	1.3	0.6	[1]1.3	3.7	2.0	0.4	2.7	2.3	3.2
	Graduate courses					**Graduate courses**				
Full professor	[1]41.8	44.0	39.2	38.3	([2])	40.3	46.3	46.9	32.8	([2])
Associate professor	[1]28.5	27.2	35.7	26.6	([2])	24.4	25.9	15.9	28.3	([2])
Assistant professor	[1]19.3	19.9	20.7	17.5	([2])	18.7	12.1	29.1	19.5	([2])
Instructor	4.3	1.7	3.2	10.1	([2])	10.3	8.7	4.5	13.1	([2])
Lecturer	3.8	3.2	[1]0.8	7.2	([2])	3.9	4.1	2.3	4.2	([2])
Other	[1]2.4	4.0	0.3	0.3	([2])	2.4	3.0	1.2	2.1	([2])

[1] Revised from previously published figures.

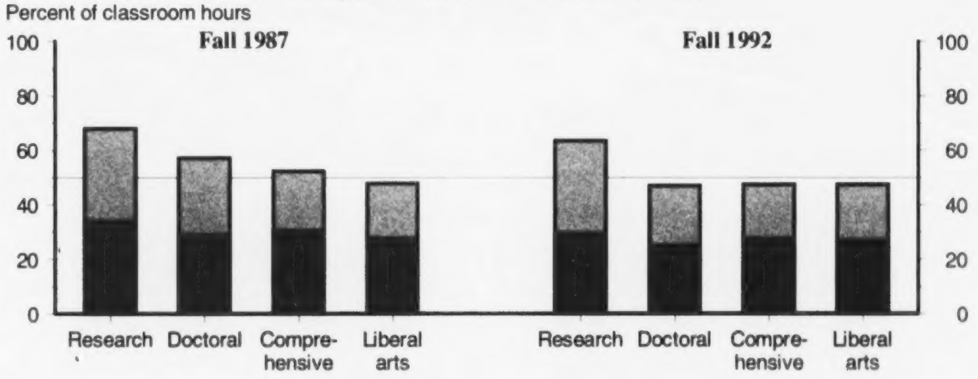
[2] Too few responses for a reliable estimate.

NOTE: Total student classroom hours are calculated as the number of classroom hours per week times the number of students in each course summed over all classes, as reported by faculty members. The percentages are calculated as the sum of the classroom hours spent with faculty of a particular rank divided by total student classroom hours. See supplemental note for definitions of faculty, institutions, and course divisions used in this indicator.

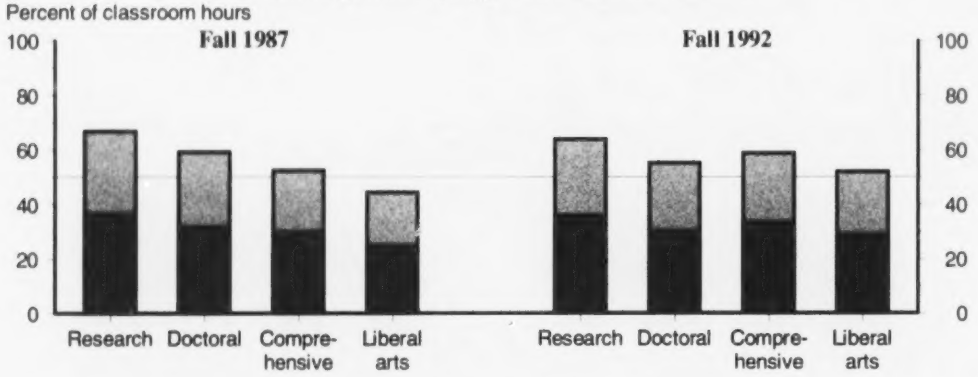
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1988 and 1993.

Percentage of classroom hours 4-year college and university students are exposed to senior faculty, by type of institution and course division: Fall 1987 and fall 1992

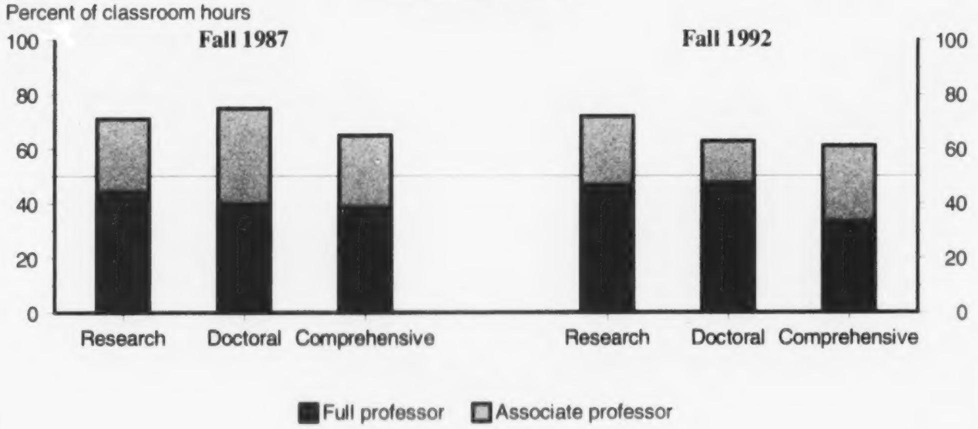
Undergraduate. lower division courses



Undergraduate, upper division courses



Graduate courses



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1988 and 1993.

Working while in college

- **Almost half (46 percent) of all 16-to-24-year-old full-time college students were employed in October 1993, and about one-fourth worked at least 20 hours per week. In addition, approximately 85 percent of 16-to-24-year-old part-time college students were employed, with 75 percent working at least 20 hours per week (see supplemental table 51-3).**
- **The percentage of 16-to-24-year-old full-time college students who were employed rose from 34 percent in 1970 to 47 percent in 1988, and since has remained fairly stable.**
- **White 16-to-24-year-old full-time college students are more likely to be employed than their black counterparts.**
- **Full-time college students, aged 16 to 24, from high income families were less likely to be employed than full-time college students from low or middle income families, and were also less likely to work at least 20 hours per week (see supplemental table 51-2).**

Working while enrolled in college can be both beneficial and detrimental to a student's academic and labor market success. Although working during the school year leaves less time for students to concentrate on their studies or to participate in extracurricular activities, students may learn things from work experience that are not taught in the classroom. While some studies show that working long hours while in college may reduce a student's likelihood of completing college or lengthen the time it takes for those who do complete it, some employment may increase expected postgraduation wages.

Percentage of 16- to 24-year-old full-time college students who are employed in October, by race/ethnicity and hours worked per week: 1970–93

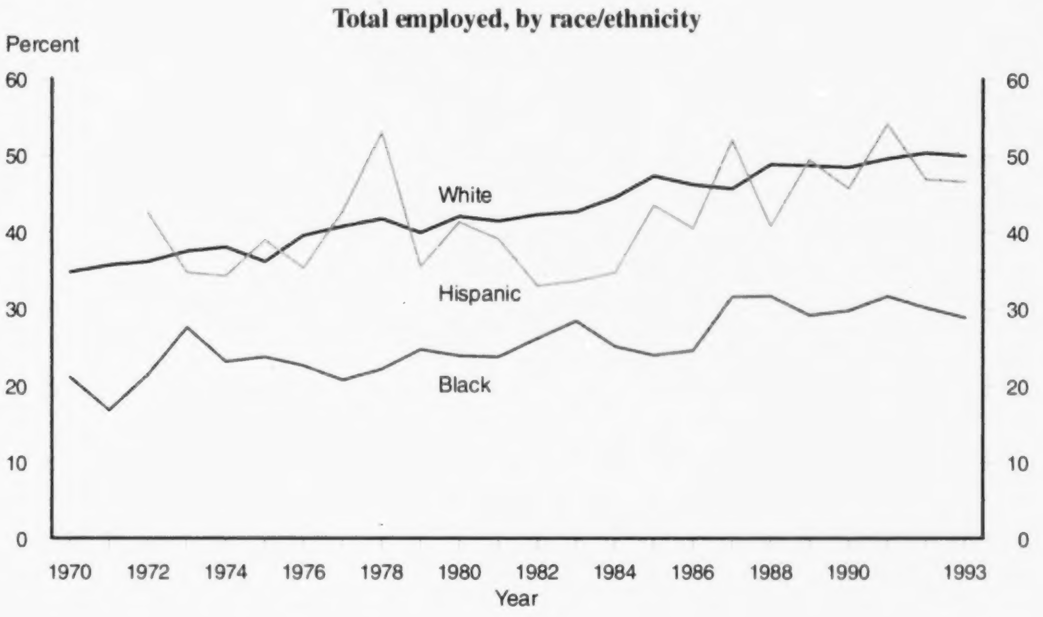
	All students			White			Black			Hispanic		
October	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours
1970	33.8	14.1	3.7	34.9	14.7	3.9	21.2	8.0	1.8	—	—	—
1971	34.1	14.8	3.7	35.8	15.6	3.8	16.9	6.1	2.5	—	—	—
1972	35.1	15.0	3.4	36.3	15.2	3.2	21.5	12.2	5.8	42.7	21.0	2.5
1973	36.4	16.8	4.4	37.6	17.4	4.3	27.7	14.2	5.8	34.8	13.8	3.3
1974	36.6	17.0	4.7	38.2	17.4	4.7	23.2	13.0	5.0	34.4	15.8	6.8
1975	35.2	16.6	4.6	36.3	17.0	4.6	23.8	13.0	4.7	39.0	17.5	4.5
1976	37.5	16.9	4.0	39.6	17.7	3.9	22.7	11.9	4.7	35.4	14.8	3.1
1977	38.8	18.1	4.2	40.9	18.9	4.0	20.8	10.5	5.3	42.9	23.5	4.6
1978	39.9	19.0	4.7	41.8	19.7	4.7	22.2	11.7	4.7	53.2	26.8	7.4
1979	38.1	18.0	4.0	40.0	18.4	3.9	24.8	13.9	5.4	35.6	20.4	5.2
1980	40.0	17.9	3.8	42.1	18.3	3.8	24.0	12.2	5.1	41.4	26.6	4.5
1981	39.3	18.7	4.2	41.6	19.5	4.1	23.8	11.7	3.8	39.2	21.9	5.9
1982	39.9	18.5	3.1	42.4	19.6	3.0	26.2	12.2	4.3	33.1	14.1	1.6
1983	40.4	18.8	3.8	42.7	19.3	4.0	28.5	16.0	2.2	33.7	20.2	5.6
1984	42.1	21.0	4.2	44.7	22.0	4.3	25.2	14.8	3.2	34.8	19.7	4.1
1985	44.2	21.5	4.3	47.4	22.6	4.4	24.1	16.0	4.9	43.5	23.2	3.5
1986	43.0	21.9	4.3	46.3	23.5	4.7	24.7	14.2	3.9	40.5	22.6	2.1
1987	44.2	22.3	4.3	45.7	22.8	4.0	31.7	15.8	4.3	52.1	31.8	7.6
1988	46.5	24.5	4.7	48.9	25.1	5.0	31.8	18.6	3.3	40.9	28.7	6.7
1989	46.5	25.2	5.4	48.8	25.6	5.6	29.3	18.5	4.3	49.6	33.8	6.0
1990	45.7	24.1	4.8	48.6	25.1	5.2	29.8	17.1	2.8	45.7	28.0	6.7
1991	47.2	25.4	5.6	49.6	26.5	6.0	31.7	19.1	3.4	54.2	30.6	4.3
1992	47.2	25.8	5.5	50.5	27.2	5.9	30.2	19.9	4.4	47.0	29.4	4.7
1993	46.3	24.6	5.1	50.1	26.5	5.5	28.9	18.0	3.8	46.7	25.1	6.3

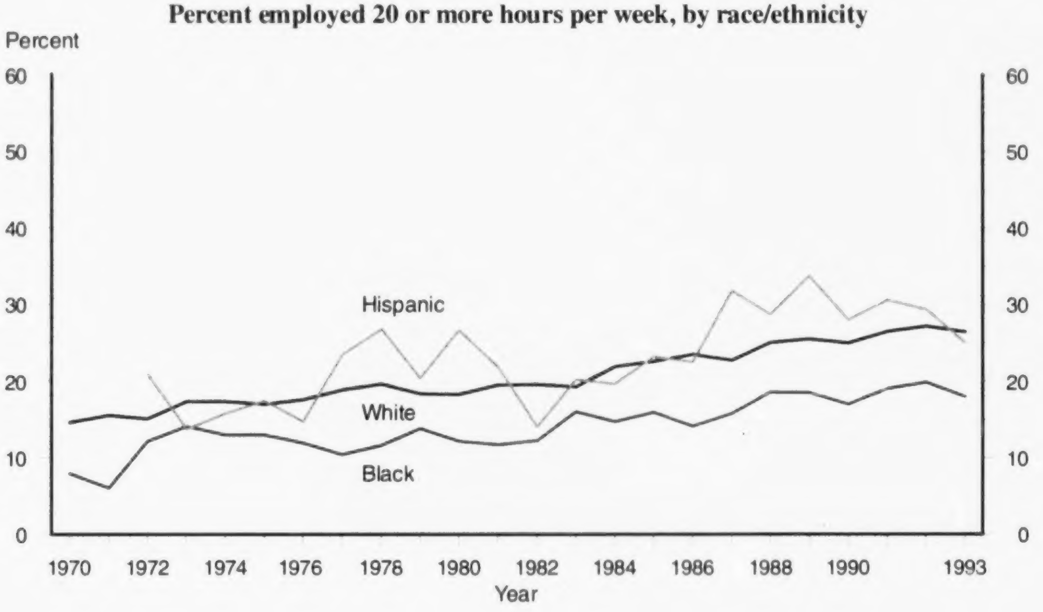
— Not available.

* Includes those with a job but not at work during the survey week.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Percentage of 16- to 24-year-old full-time college students who were employed in October: 1970–93





SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Human and Financial Resources of Educational Institutions

The 1980s and early 1990s have presented many fiscal challenges to schools, colleges, and universities. More than half of the states face challenges to the constitutionality of their systems of financing public elementary and secondary education. The percentage of limited-English-proficient and handicapped students is on the rise. And in postsecondary education, institutions have confronted both a declining number of new high school graduates and reduced support from state appropriations. Furthermore, calls to raise the quality of education have grown as Americans increasingly feel the competitive pressure of the global marketplace and the decline in their economic prosperity.

Financial Resources

The United States invests a substantial amount in education. One measure of this investment is revenues from public sources for a particular level of education (whether or not the institution that eventually receives the revenue is publicly controlled), divided by the number of students enrolled at that level (whether or not the institution in which they are enrolled is publicly controlled).

Per student. In 1993, revenues from public sources to support elementary and secondary education were $5,379 per student. Public revenues for higher education in 1992 were about $4,556 per student (*Indicator 52*).

Over time. During the post-World War II era, revenues from public sources for students in elementary and secondary schools have increased substantially every decade. These revenues increased almost fivefold between 1950 and 1993, rising from $1,200 to $5,400 per student (adjusted for inflation) (*Indicator 52*). This trend is likely to have been driven by many factors. For example, the education system has assumed greater responsibility in many areas, such as education of disabled students. In addition, public policy has increased spending on children from poor families and has sought to increase the quality of education of minorities to a level comparable to that of the majority. Furthermore, women are participating in more traditionally male occupations, driving up the cost of education by forcing teacher salaries to be more competitive with other professions as women find alternative careers.

The ability of taxpayers to finance a larger education budget also increased over the decades, although it did not rise up at the same rate as public revenue per student. Between 1950 and 1993, personal income per capita increased about 250 percent, whereas public revenues per student rose almost 450 percent. It could be said that U.S. taxpayers are making more of an effort to finance elementary and secondary public education. This is reflected in the increase in the national effort index (per student revenues for elementary and secondary education from public sources as a percentage of personal income per capita) over the last four decades. Revenues per student were 14 percent of personal income per capita in 1950, and 25 percent in 1993 (*Indicator 52*). This is near the top for the G-7 industrialized democracies (*Indicator 54*).

Between districts. Some school districts receive more revenue per student than others. For instance, the wealthiest districts in terms of median household income have 15 percent more cost-of-living adjusted revenue per student than the poorest districts (*Indicator 53*).

Human Resources

The most important resource used in education is personnel. In 1991, in elementary and secondary education, there were 11 full-time-equivalent (FTE) staff per 100 students. Of these, six were classroom teachers and three were support staff, such as secretaries and bus drivers. The remaining two were principals, assistant principals, school district administrators, librarians, guidance counselors, and teacher aides (*Indicator 57, Condition of Education 1993*).

The cost of staff resources is determined not only by the number of staff employed but also by their salaries. In 1994, the average annual salary of public elementary school teachers was about $35,800; for secondary school teachers, it was $37,300. Teacher salaries in public schools rose between 1960 and 1972; then they fell until 1980, rose until 1992, and have been fluctuating ever since. Average beginning teacher salaries did not rise as rapidly as average teacher salaries during the 1980s, and they were $24,700 in 1994, about the same level as two decades earlier (*Indicator 57*).

Teacher salaries are relatively low when compared to those of alternative professions that college students could pursue. There is some concern among policymakers whether this discourages the best and brightest from choosing teaching as a profession. In 1991, elementary and secondary school teachers had prose literacy skills similar to physicians, engineers, postsecondary teachers, social workers, writers and artists, financial managers, registered nurses, and sales representatives in the business and financial fields. However, their earnings were often substantially less than professionals in these other occupations (*Indicator 59*). There may be some nonpecuniary benefits of teaching that compensate teachers for the low pay.

Although it is very difficult to assess the quality of a teacher based on easily measured characteristics, many analysts argue that the education and certification of teachers are very important. How well do teachers' education's match what they are assigned to teach? Less than 5 percent of full-time teachers in public secondary schools were not certified to teach in their main assignment field in 1990–91, and one out of four did not major or minor in a subject area similar to the one they spend most of their time teaching. However, of those teachers who had an additional assignment field in 1990–91 (22 percent), about one-third were not certified to teach in that field and 55 percent had neither majored nor minored in that subject area. It would appear then that there is a mismatch between the background and teaching assignments for a significant number of teachers, especially for those who have an additional assignment field (*Indicator 58* and table 58-1).

In the last two decades, as fewer college graduates entered the teaching profession and enrollments increased in elementary and secondary schools, policymakers have become concerned about the supply of teachers. Replacing teachers who leave is the largest single factor determining the demand for additional teachers. Between the school years of 1990–91 and 1991–92, about 1 in 10 teachers left teaching. About one-third of public school teachers left for retirement, while about one-eighth of the private school teachers left for this reason. Relatively few teachers reported dissatisfaction with teaching as a career as their main reason for leaving teaching, although about twice as many secondary teachers reported this reason as did elementary teachers, for both public and private schools (*Indicator 60*).

Higher Education Budgets

Between 1980 to 1992, average revenue per student rose at public 4-year colleges and universities. While revenue from tuition and fees rose, revenue from government sources fell. Expenditures per student at these institutions rose somewhat more than revenue per student over the same period. Expenditures for administration and student services rose more than expenditures for instruction. Although a small part of the total, expenditures for scholarships and fellowships also rose a great deal over the period at these institutions (*Indicators 55* and *56*).

At private 4-year colleges and universities, both revenue per student and expenditures per student rose more than at public institutions between 1980 and 1992. Not surprisingly, over this period, revenue from tuition and fees increased dramatically at private institutions.

At public 2-year colleges, neither revenue per student nor expenditure per student was higher in 1992 than in 1980. However, revenues from tuition and fees rose while revenue from government sources fell.

National index of public effort to fund education

- **In 1993, the national index of public effort for elementary and secondary education was 25.3, a slight decrease after a 4-point increase between 1982 and 1992. The public education revenue for elementary and secondary students (in 1994 constant dollars) has risen from $639 per student in 1930 to $5,379 per student in 1993.**
- **The national effort index of public effort for higher education was 21.8 in 1992, the lowest level since 1930. However, higher education public revenues per student (in 1994 constant dollars) have been relatively stable since 1970, with the exception of a drop in the early 1980s.**

The national index of public effort is revenue raised for the education of students relative to the income of taxpayers adjusted for the number of students and number of people in the population. The numerator is revenues per student, a measure of average financial resources available for the education of each student. The denominator is personal income per capita, a measure of the taxpayer's average ability to pay. The index can be interpreted as the number of dollars of revenue raised for each student from each 100 dollars of income received by each member of the population.

- **After remaining relatively stable during the 1980s, elementary and secondary public education revenue as a percentage of Gross Domestic Product (GDP) rose between 1988 and 1993, but has not rebounded to the level of the early to mid-1970s. Higher education revenue as a percentage of GDP has remained about 1 percent since the mid-1960s.**

National index of public effort (public education revenues per student in relation to per capita personal income), by level: Selected school years ending 1930–93

	National index		Public education revenue				
			Per student[1]		As a percentage of GDP		Per capita
School year ending	Elementary/ secondary	Higher education[2]	Elementary/ secondary	Higher education[2]	Elementary/ secondary	Higher education[2]	personal income[1]
1930	10.6	22.5	$639	$1,352	2.0	0.2	$6,017
1940	14.6	26.0	856	1,524	2.5	0.2	5,871
1950	13.9	32.0	1,196	2,762	2.1	0.4	8,623
1960	16.2	31.6	1,823	3,557	3.0	0.5	11,238
1966	18.2	33.9	2,433	4,545	3.6	0.8	13,402
1970	20.0	30.9	3,095	4,765	4.2	1.0	15,443
1972	22.3	30.1	3,516	4,744	4.6	1.1	15,769
1974	21.2	28.0	3,675	4,847	4.3	1.1	17,329
1976	22.9	27.7	3,827	4,615	4.5	[3]1.2	16,691
1978	22.2	26.7	3,961	4,745	4.1	[3]1.1	17,802
1980	21.5	24.8	3,970	4,583	3.9	[3]1.1	18,472
1982	21.2	22.7	3,817	4,092	3.6	1.1	17,989
1984	22.5	22.9	4,087	4,174	3.7	1.0	18,203
1986	23.1	24.4	[3]4,522	4,780	3.7	1.1	19,553
1988	[3]23.4	23.7	[3]4,775	4,856	3.7	1.1	20,451
1990	25.0	22.8	[3]5,290	[3]4,835	4.0	1.1	[3]21,200
1992	25.5	21.8	[3]5,329	[3]4,556	4.1	1.1	[3]20,918
1993	25.3	—	5,379	—	4.1	—	21,302

— Not available.

[1] In constant 1994 dollars, using the Consumer Price Index (CPI) adjusted to a school year basis.

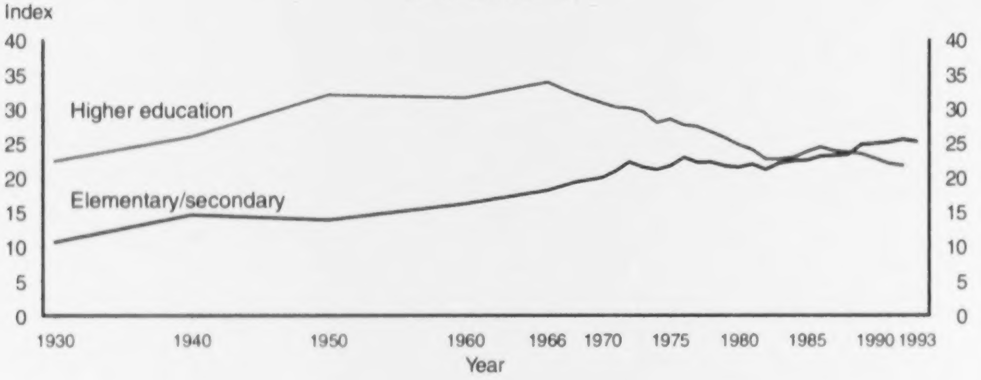
[2] The higher education revenues differ from previously published figures as they are now being adjusted by the school year CPI.

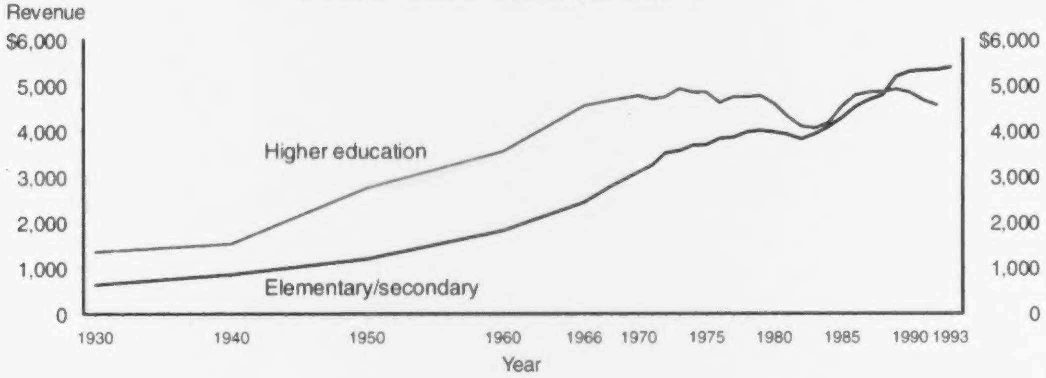
[3] Revised from previously published figures.

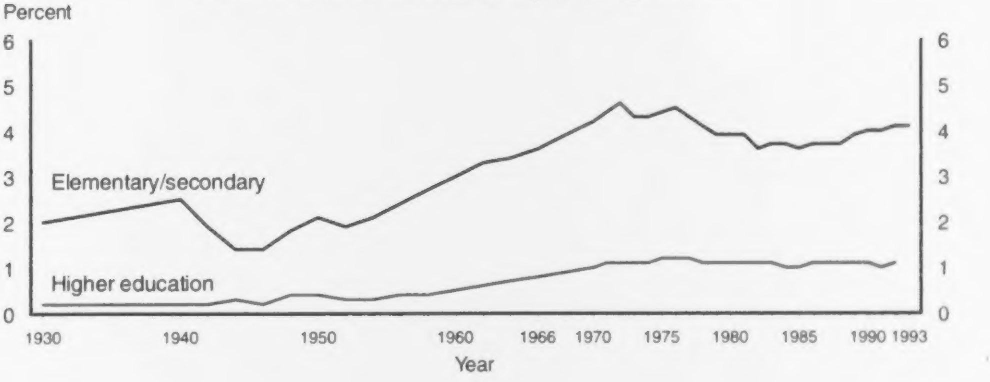
NOTE: Public funds for education may be used at many types of institutions, both publicly and privately controlled. For comparability across levels of education, enrollment in both publicly and privately controlled institutions is used. For further information about the calculation of this indicator, see the supplemental note and the notes to the supplemental tables.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994* (based on Common Core of Data and IPEDS/HEGIS surveys of fall enrollment). U.S. Department of Commerce, Bureau of Economic Analysis, *Economic Report to the President*, February 1994.

National index of public effort to fund education (revenues per student in relation to per capita personal income), by level: Selected school years ending 1930–93


National index


Public education revenue per student


Public education revenue as a percentage of GDP

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994* (based on Common Core of Data and IPEDS/HEGIS surveys of fall enrollment). U.S. Department of Commerce, Bureau of Economic Analysis, *Economic Report to the President*, February 1994, table B-114.

Public school district funding differences

- **The wealthiest districts in terms of household income have more revenue per student than the poorest districts. However, the difference is reduced from about 36 percent to about 16 percent when adjustment is made for cost-of-living.**
- **School districts with less than 5 percent of children living in poverty have more revenue per student than those with more than 25 percent. However, the difference is reduced from 27 percent to 20 percent when adjustment is made for cost-of-living. The low poverty districts receive much less of their revenue from state and federal sources than do high poverty districts (35 versus 73 percent).**
- **Districts with less than 3 percent of students receiving special education services received 7 percent *less* revenue per student before adjusting for cost of living but 4 percent *more* after adjusting, than districts with 10 percent or more special education students.**

Differences in the revenue public school districts receive have led to legal challenges of the equity of school finance in many states. Achieving equity in the allocation of resources for education requires consideration of factors such as the cost-of-living and the educational needs of children in addition to the wealth of the school district. Districts in high cost-of-living regions may have to raise more revenue to provide their employees with compensation comparable to those in low cost regions. Districts with high percentages of disabled, limited-English-proficient, and poor children may have to raise more revenue to provide education comparable to those in districts with lower percentages of these children. This indicator addresses only the effect of the first factor on measures of resource inequality.

Total revenue per student in actual dollars and dollars adjusted for cost-of-living, and revenue shares from local, state, and federal sources, by district characteristics: 1989–90

District characteristics	Percentage of enrollment	Unadjusted		Adusted for cost of living		Revenue share		
		Dollars	Percentage difference*	Dollars	Percentage difference*	Percent local	Percent state	Percent federal
Median household income								
Less than $20,000	10.1	$4,297	0	$4,411	0	28.2	60.1	11.7
$20,000–24,999	21.3	4,622	8	4,638	5	38.7	53.7	7.6
$25,000–29,999	25.4	5,107	19	4,839	10	44.0	49.6	6.4
$30,000–34,999	15.9	5,015	17	4,677	6	44.1	50.9	4.9
$35,000 or more	27.2	5,862	36	5,137	16	56.3	40.9	2.8
Percentage of students receiving special education services								
10.0 or more	9.3	5,389	0	4,691	0	46.0	47.7	6.3
3.0 to 9.9	69.0	4,914	-9	4,835	3	42.3	51.6	6.0
Less than 3.0	21.6	5,003	-7	4,878	4	47.4	47.4	5.1
Percentage of children with limited English proficiency								
5.0 or more	21.6	5,433	0	4,691	0	38.0	54.3	7.7
0.1 to 4.9	69.0	5,038	-7	4,835	3	46.6	47.9	5.5
0.0	9.3	4,913	-10	4,878	4	45.2	49.0	5.8
Percentage of school-age children in poverty								
25.0 or more	26.4	5,064	0	4,702	0	27.1	60.1	12.8
15.0 to 24.9	26.3	4,681	-8	4,592	-2	37.8	53.9	8.3
5.0 to 14.9	36.0	5,048	0	4,788	2	44.9	50.3	4.8
Less than 5.0	11.3	6,432	27	5,624	20	64.7	33.2	2.1

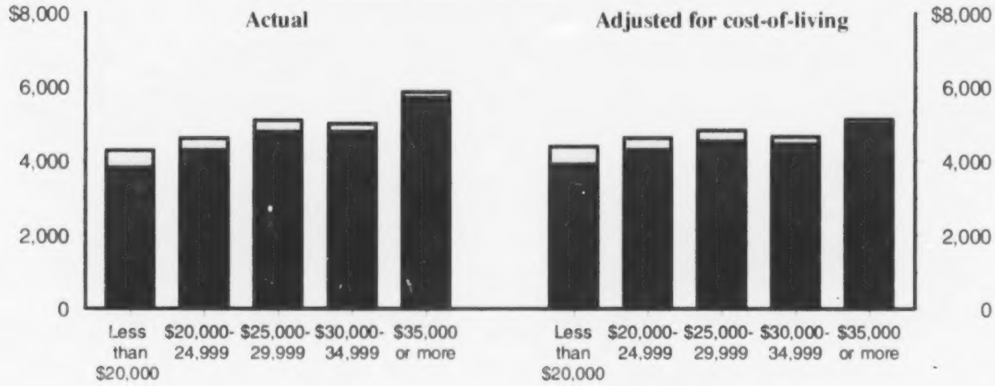
* Percentage difference from the first category for each district characteristic.

NOTE: See supplemental note to this indicator for further discussion of issues in the measurement of educational resource disparity and the supplemental table for revenue per student adjusted for both cost-of-living and the educational needs of children. Details of percentage of enrollment and revenue shares may not add to 100 due to rounding.

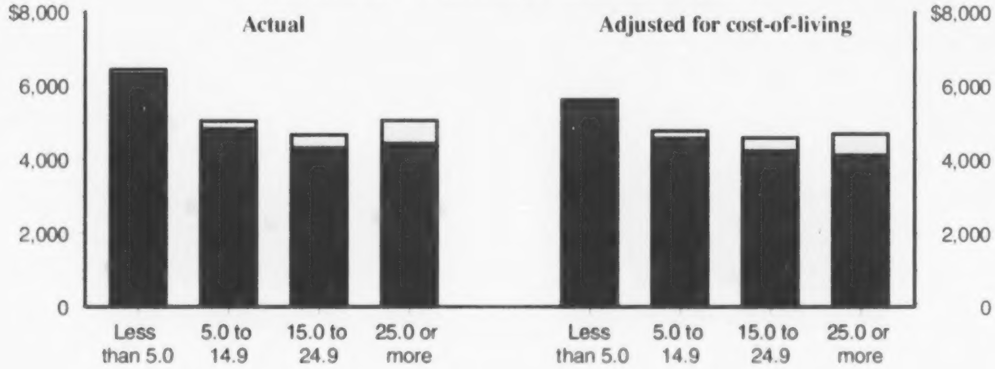
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Disparities in Public School District Spending: 1989–90,* tables A1.1, A1.2, A2.1, and A2.2.

Total revenue per student in actual dollars and dollars adjusted for cost-of-living, by source of revenue and selected school district characteristics: 1989–90

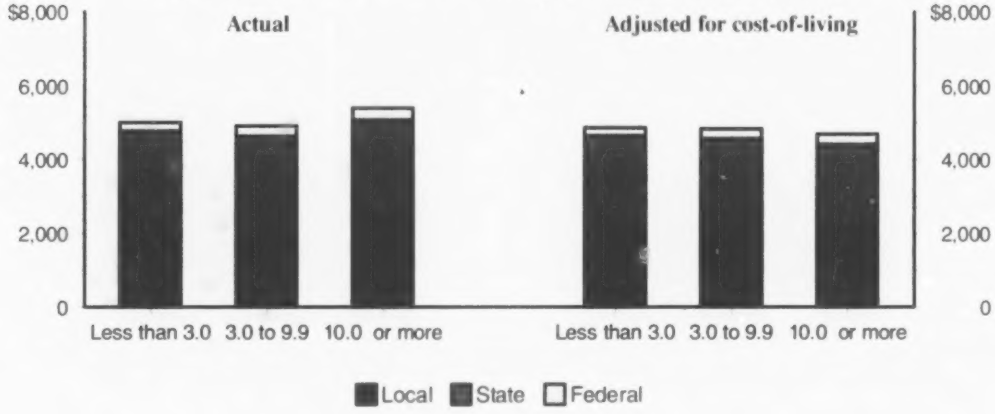
By median household income in district



By percentage of school-age students in poverty



By percentage of children receiving special education services



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Disparities in Public School District Spending 1989–90*, tables A1.1, A1.2, A2.1, and A2.2.

International comparisons of public expenditures for education

- **Generally, among the G-7 countries, only Canada showed a higher level of public education expenditures than the United States.**
- **Public expenditures for the 1991–92 school year in the United States were 0.2 percent of Gross Domestic Product (GDP) for preprimary education, 3.5 percent for grades 1–12, and 1.2 percent for higher education. France and Italy spent a larger fraction for preprimary education, while the former West Germany spent the same fraction as the United States. Only Canada and the United Kingdom expended a larger fraction than the United States for 1st–12th grade education and only Canada expended more for higher education.**

Public education expenditures are an indication of public investment in education. In the United States and other countries, there are additional private expenditures for education. Three alternative measures allow examination of the magnitude of public investment in education. The first provides a measure of the fraction of a country's resources that are allocated to public education. The second provides a measure of the public investment in each child in the education system. The third provides a measure of public educational investment in each child compared to available resources per person in the country.

- **In grades 1–12, public expenditures per student in the G-7 countries ranged from $2,707 in Japan to $4,935 in Canada and $4,909 in the United States. In higher education, public expenditures ranged from $2,358 in Japan to $9,829 in Canada and $6,984 in the United States.**

Current public expenditures for education, by level of education and country: School year 1991–92

				Per student [1]					
	As a percent of GDP [2]			Constant 1991–92 U.S. dollars [3]			As a percentage of GDP per capita		
G-7 countries	Pre-primary	1st-12th	Higher education	Pre-primary	1st-12th	Higher education	Pre-primary	1st-12th	Higher education
Canada[4]	—	4.3	2.4	—	$4,935	$9,829	—	24.8	49.3
France	0.6	3.4	0.8	$2,337	3,630	4,676	12.6	19.6	25.3
Former West Germany[5]	0.2	2.4	0.8	1,619	3,616	5,749	8.0	17.8	28.3
Italy	0.4	3.3	0.6	2,259	4,036	3,888	13.0	23.2	22.4
Japan	0.1	2.3	0.3	800	2,707	2,358	4.0	13.7	11.9
United Kingdom[6]	0.1	3.8	1.0	1,819	3,365	9,154	11.2	20.6	56.2
United States	0.2	3.5	1.2	2,234	4,909	6,984	9.5	20.9	29.8

— Not available.

[1] Enrollment is in all institutions, public and private, and is based on headcount estimates for preprimary through 12th grade. For higher education, it is full-time-equivalent enrollment.

[2] Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad.

[3] Purchasing Power Parity (PPP) indices were used to convert other currencies to U.S. dollars. Because the fiscal year has a different starting date in different countries, within-country Consumer Price Indices (CPIs) were used to adjust the PPP indices to account for inflation.

[4] Preprimary expenditures for Canada are grouped with elementary and secondary data.

[5] Includes contributions to the pension funds of teachers who are civil servants. Expenditure data for publicly-supported private schools include capital expenditures.

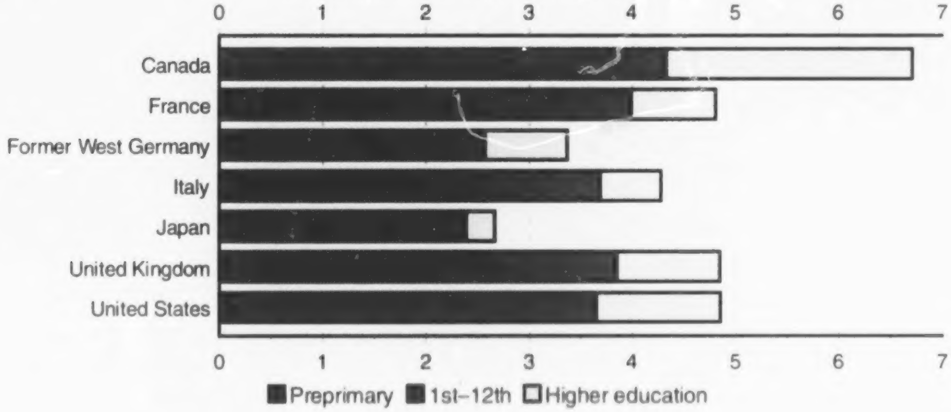
[6] Excludes expenditures on nursing and paramedical education.

NOTE: The fiscal year begins in different months in the above countries. See supplemental note to *Indicator 54* for an explanation of how expenditures were adjusted. See supplemental tables 54-1 through 54-5 for additional expenditure data and the supplemental note to this indicator for a discussion of these data.

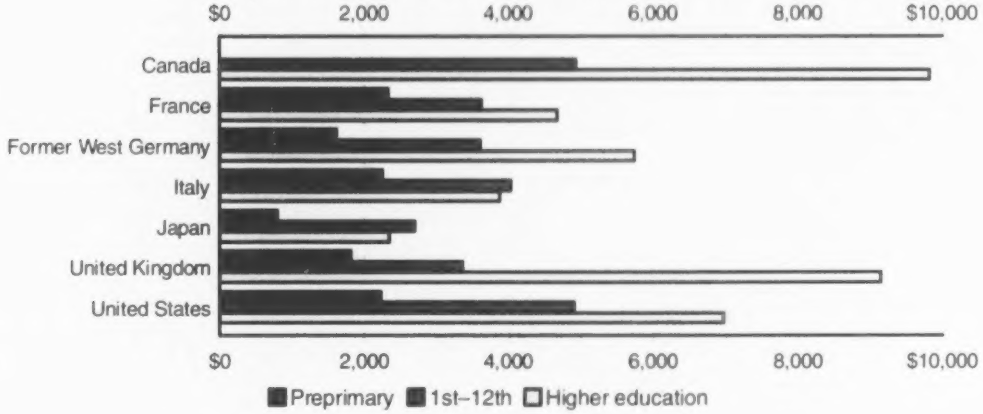
SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, International Indicators Project, 1995.

International comparisons of public expenditures for education: School year 1991–92

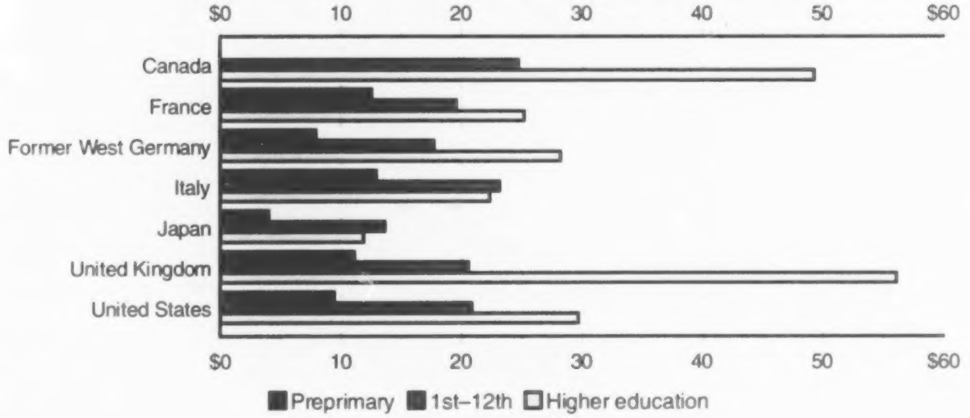
Expenditures as a percentage of GDP



Expenditures per student (constant 1991–92 U.S. dollars)



Expenditures per student as a percentage of GDP per capita



NOTE: Preprimary expenditures for Canada are grouped with elementary and secondary data.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, International Indicators Project, 1995.

Higher education expenditures per student

A majority of higher education institutional expenses are generated by faculty and staff salaries, administrative services, and institutionally-supported research. Understanding trends and variations in the mix of expenditures can provide an indication of the evolving organizational priorities of different institutional types and sectors.

- **Expenditures per student for instruction vary widely across types of higher education institutions. In 1992, they varied from $2,859 at public 2-year colleges to $12,304 at private universities.**
- **In 1992, expenditures for instruction varied from 33 percent of the total at private 4-year colleges to 50 percent of the total at public 2-year colleges (see supplemental table 55-2).**
- **Over the past 15 years, expenditures per student have increased at most types of higher education institutions, but the percentage they have increased varies widely by type of institution. For example, between 1977 and 1992, they increased by only 1 percent at public 2-year colleges, but they rose by 46 percent at private universities (see supplemental table 55-1).**
- **There have also been shifts in the distribution of expenditures across categories. For example, at private universities between 1977 and 1992, the share of expenditures for instruction was the same (38 percent), but it increased for administration (from 13 to 15 percent) and for scholarships and fellowships (from 8 to 11 percent), while declining for research (from 21 to 17 percent).**

Educational and general expenditures per full-time-equivalent (FTE) student (in 1994 constant dollars) of institutions of higher education, by selected expenditure categories and type of institution: Academic years ending 1977–92

	Universities						Colleges					
Academic	Private			Public			Private 4-year		Public 4-year		Public 2-year	
year ending	Instruction	Administration*	Research	Instruction	Administration*	Research	Instruction	Administration*	Instruction	Administration*	Instruction	Administration*
1977	$8,410	$3,666	$4,658	$5,572	$2,382	$2,623	$4,073	$3,032	$4,833	$2,336	$2,868	$1,488
1978	8,310	3,662	4,550	5,666	2,449	2,680	4,078	3,064	4,866	2,387	2,862	1,560
1979	8,287	3,876	4,594	5,847	2,517	2,833	4,093	3,132	4,958	2,537	2,935	1,634
1980	8,530	3,952	4,625	5,748	2,420	2,891	4,111	3,200	4,936	2,587	2,896	1,593
1981	8,683	3,974	4,513	5,617	2,427	2,867	4,058	3,270	4,877	2,538	2,791	1,532
1982	8,862	3,965	4,296	5,581	2,423	2,768	4,114	3,353	4,942	2,535	2,802	1,532
1983	9,016	4,244	4,091	5,576	2,421	2,755	4,220	3,480	4,829	2,466	2,653	1,485
1984	9,487	4,654	4,362	5,678	2,484	2,815	4,334	3,599	4,827	2,623	2,690	1,515
1985	9,748	4,795	4,653	5,911	2,688	2,999	4,454	3,747	5,066	2,784	2,922	1,684
1986	10,086	5,033	4,937	6,067	2,831	3,167	4,553	3,896	5,280	2,888	2,997	1,782
1987	11,175	5,543	5,366	6,212	2,901	3,266	4,713	4,276	5,229	2,906	3,023	1,900
1988	11,041	5,588	5,506	6,257	2,953	3,452	4,784	4,281	5,311	2,934	2,952	1,870
1989	11,361	5,655	5,512	6,259	3,001	3,562	4,771	4,326	5,208	2,843	2,993	1,871
1990	11,466	5,593	5,648	6,215	2,963	3,630	4,824	4,379	5,241	2,918	2,931	1,834
1991	11,960	5,785	5,553	6,269	2,995	3,757	4,884	4,522	5,088	2,848	2,966	1,872
1992	12,304	5,951	5,619	6,214	2,929	3,790	4,973	4,513	5,035	2,911	2,859	1,773

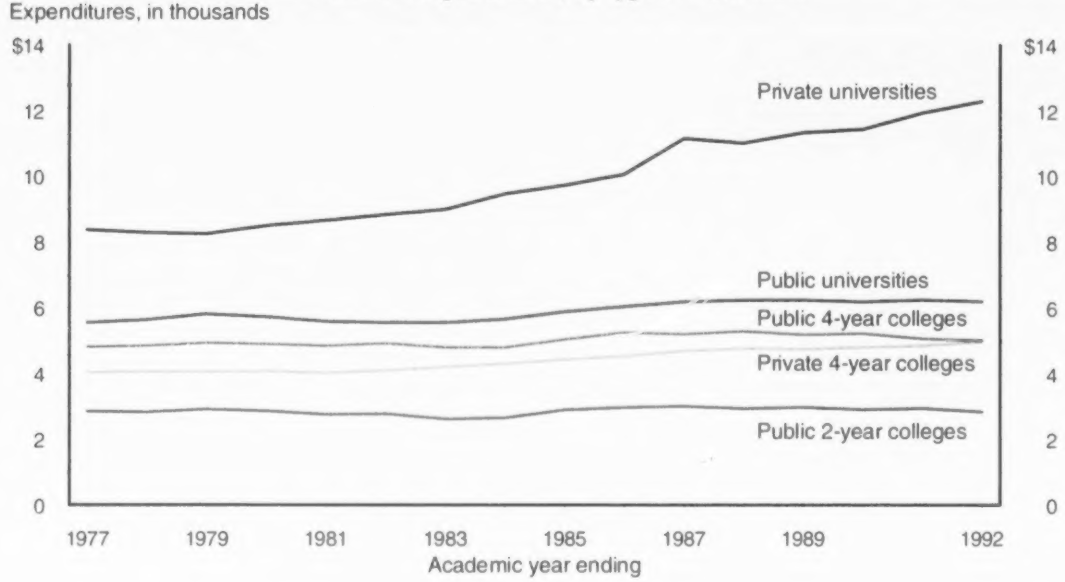
*Administrative expenditures and student services. In supplemental tables 55-1 and 55-2, these categories are reported separately.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data.

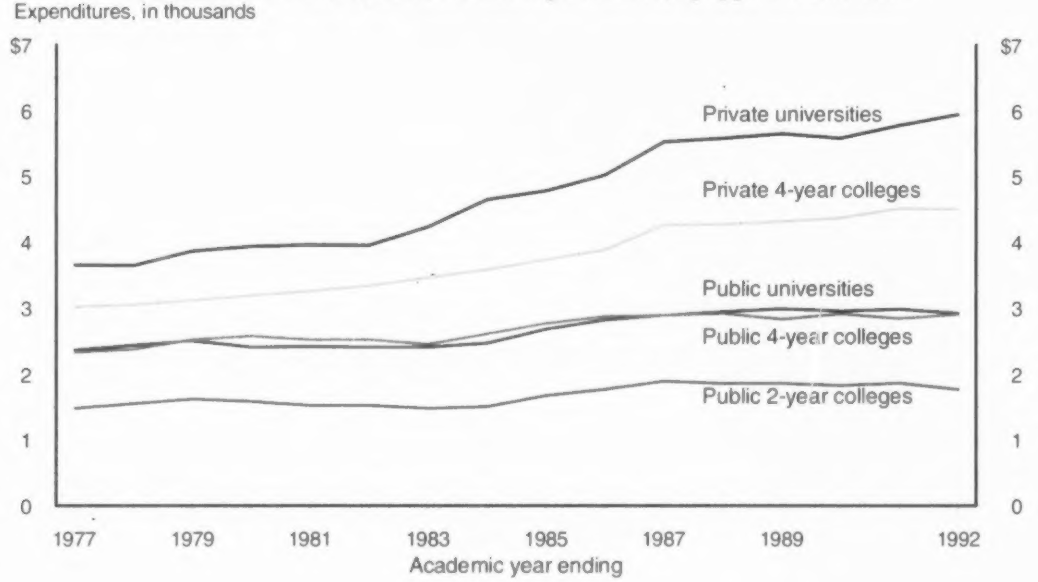
SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education Survey and Integrated Postsecondary Education Data System (IPEDS), Finance Survey.

Educational and general expenditures per full-time-equivalent student (in 1994 constant dollars) of institutions of higher education: Academic years ending 1977–92

Instructional expenditures, by type of institution



Administrative and student service expenditures, by type of institution



SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education Survey and Integrated Postsecondary Education Data System (IPEDS), Finance Survey.

Higher education revenues per student

- **Revenue per full-time-equivalent (FTE) student varies substantially across types of higher education institutions. In 1992, revenue per FTE student varied from $5,743 at public 2-year colleges to $30,459 at private universities. Public 4-year colleges received $11,785 and private 4-year colleges received $14,230 per FTE student (see supplemental table 56-1).**

The primary sources of revenue for institutions of higher education are tuition charged students and government appropriations. As costs rise so must revenue. If institutions of higher education ask for higher tuition or greater appropriations, they are likely to face increasing pressure from students and governments to provide higher quality education.

- **With the exception of public 2-year colleges, revenue per FTE student (in 1994 constant dollars) increased at all types of higher education institutions between 1977 and 1992. At private institutions the increase over this period was particularly dramatic—from $21,538 to $30,459 at universities and from $10,645 to $14,230 at 4-year colleges (see supplemental table 56-1).**
- **While revenue per FTE student increased, government appropriations per FTE fell at all types of institutions between 1977 and 1992. At public institutions the decrease in appropriations was particularly large between 1990 and 1992, and even with significant increases in tuition revenue per FTE student, total revenue fell or remained steady during that period (see supplemental table 56-1).**

Current fund revenues per full-time-equivalent student (in 1994 constant dollars) of institutions of higher education, by selected revenue sources and type of institution: Academic years ending 1977–92

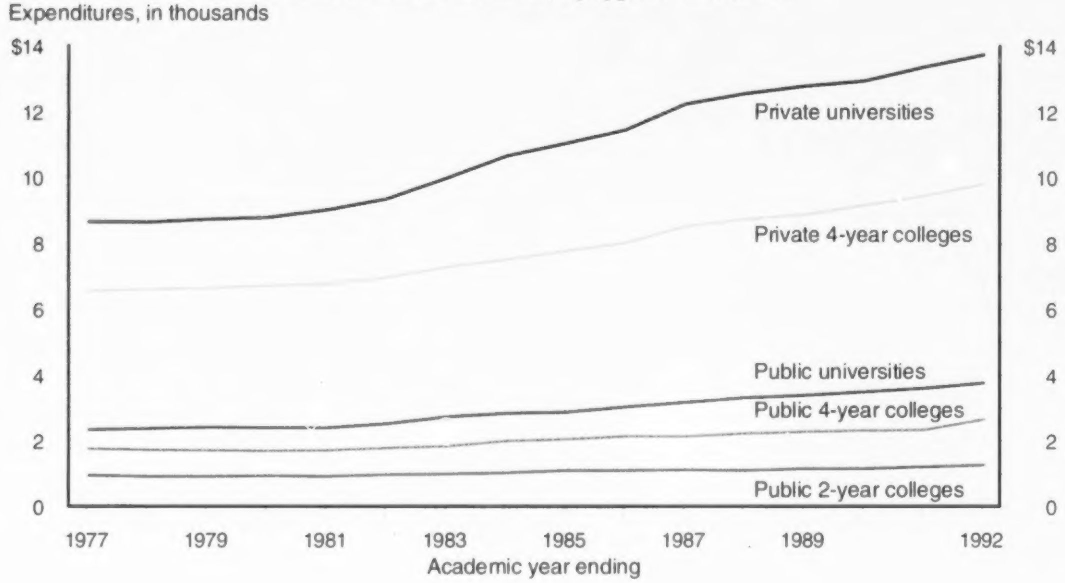
	Universities				Colleges					
	Private		Public		Private 4-year		Public 4-year		Public 2-year	
Academic year ending	Tuition and fees*	Government approp-priations	Tuition and fees*	Government appro-priations	Tuition and fees*	Government appro-priations	Tuition and fees*	Government appro-priations	Tuition and fees*	Government appro-priations
1977	$8,672	$852	$2,351	$7,929	$6,567	$322	$1,763	$7,060	$962	$4,267
1978	8,658	764	2,382	8,106	6,609	313	1,741	7,218	925	4,314
1979	8,745	752	2,421	8,363	6,651	310	1,710	7,481	928	4,376
1980	8,791	738	2,395	8,201	6,723	319	1,694	7,566	933	4,279
1981	9,013	731	2,409	7,865	6,763	325	1,713	7,386	928	4,025
1982	9,348	690	2,520	7,685	6,968	286	1,793	7,352	980	3,970
1983	9,995	717	2,729	7,527	7,278	264	1,843	7,141	985	3,691
1984	10,652	696	2,845	7,824	7,518	258	1,997	7,077	1,023	3,770
1985	11,035	692	2,865	8,350	7,771	255	2,056	7,623	1,091	4,098
1986	11,452	669	3,041	8,570	8,018	256	2,140	7,796	1,111	4,305
1987	12,238	631	3,172	8,343	8,522	284	2,139	7,497	1,121	4,314
1988	12,549	602	3,320	8,406	8,741	291	2,221	7,561	1,105	4,206
1989	12,779	597	3,392	8,349	8,881	239	2,273	7,208	1,155	4,199
1990	12,927	601	3,481	8,252	9,166	222	2,317	7,054	1,157	4,036
1991	13,357	517	3,597	8,018	9,450	209	2,330	6,499	1,206	4,012
1992	13,729	436	3,758	7,489	9,799	170	2,637	6,463	1,269	3,791

* Federally supported student aid received through students (e.g., Pell Grants) is included under tuition and auxiliary enterprised.

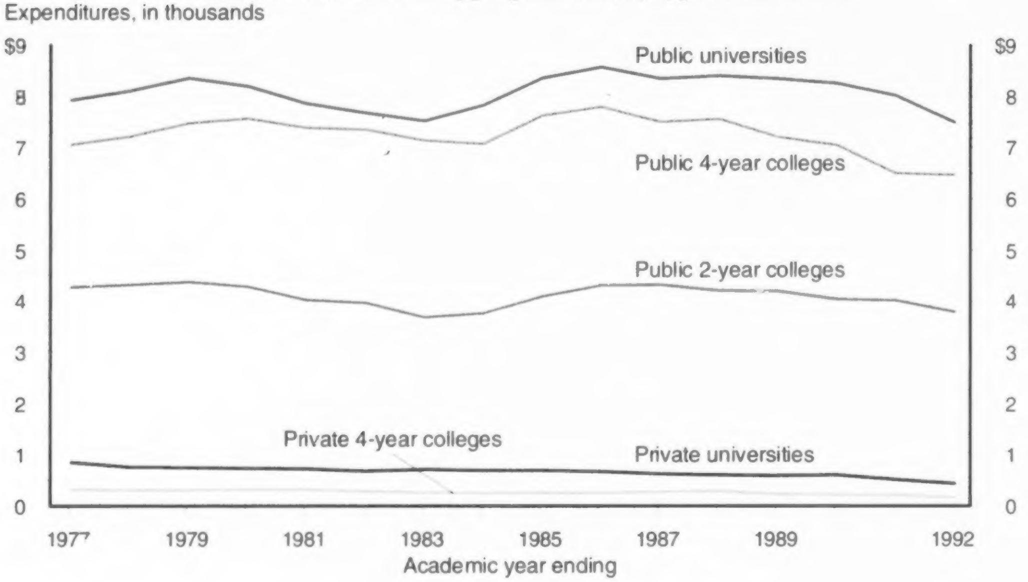
NOTE: Using the Higher Education Price Index to convert to constant dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education Survey and Integrated Postsecondary Education Data System (IPEDS), Finance Survey.

Current fund revenues per full-time-equivalent student (in 1994 constant dollars) of institutions of higher education: Academic years ending 1977–92



Tuition and fee revenues, by type of institution



Federal, state, and local appropriations, by type of institution

SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education Survey and Integrated Postsecondary Education Data System (IPEDS), Finance Survey.

Salaries of teachers

- **Between 1980 and 1994, average overall public school teachers' salaries, adjusted for inflation, increased by 21 percent, rising from $30,528 to $36,495. In 1994, the average salary of public school elementary teachers was $35,748, and the average salary of public school secondary teachers was $37,314.**
- **Following a period of decline in the 1970s, public school teachers' salaries increased continuously throughout the 1980s and into the early 1990s, reaching a peak of $36,668 in 1991. Since then, salaries have fluctuated slightly (see supplemental table 57-1).**

> *There has been much discussion about increasing the supply and quality of teachers. Education officials are experimenting with teacher salary structures, creating new career steps, career ladders, merit pay schemes, and new positions with greater authority and responsibility in order to attract and retain better teachers. In the past, such experiments have been associated with increases in teachers' salaries.*

- **The average beginning salary for public school teachers increased 17 percent between 1980 and 1994, rising from $21,028 to $24,661.**
- **Percentage increases in public school teacher salaries between 1981 and 1994 ranged from a high of 54 percent in New England to a low of 10 percent in the Rocky Mountain states.**

Average annual salary (in 1994 constant dollars) for public elementary and secondary school teachers: Selected school years ending 1960–94

School year ending	All teachers	Elementary teachers	Secondary teachers	Beginning teachers*
1960	$25,227	$24,319	$26,647	—
1964	28,845	27,932	30,150	—
1968	32,391	31,454	33,566	—
1972	34,999	33,986	36,175	$24,745
1976	33,716	32,860	34,618	23,694
1980	30,528	29,761	31,463	21,028
1984	31,981	31,328	32,884	22,113
1988	35,913	35,254	36,892	24,551
1992	36,597	35,950	37,362	24,615
1993	36,470	35,768	37,323	24,555
1994	36,495	35,784	37,314	24,661

— Not available.

* Salary for beginning teachers is for the calendar year.

Average annual salaries of public school teachers, percentage difference in salaries between 1981 and 1994, and per capita personal income for 1993 (in 1994 constant dollars), by region

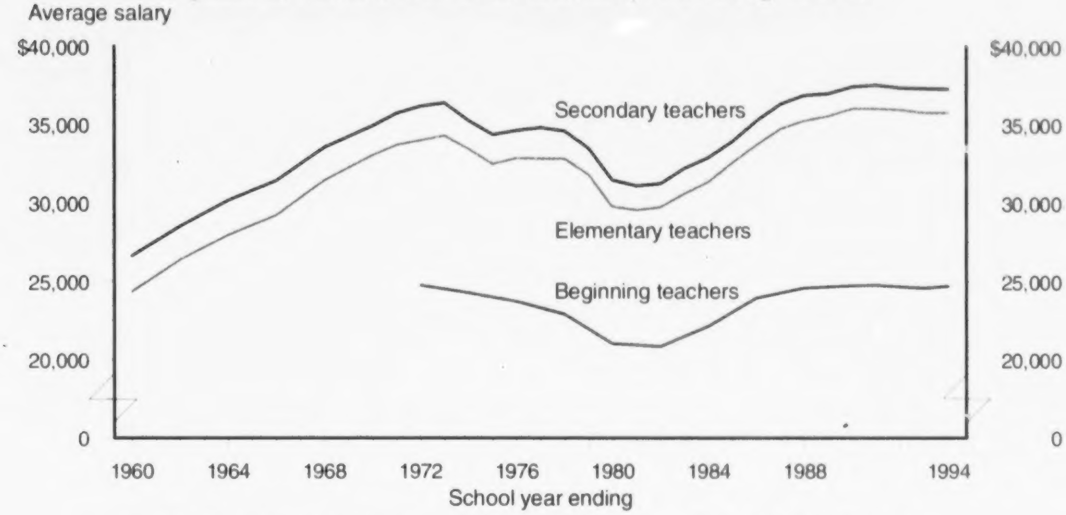
Region	All teachers 1980–81	All teachers 1993–94	Percentage difference 1981–94	Per capita personal income (1993)
50 States and D.C.	**$30,226**	**$36,495**	**20.7**	**$21,042**
New England	27,502	41,169	49.7	24,883
Mideast	33,562	45,523	35.6	24,704
Southeast	25,763	30,817	19.6	19,231
Great Lakes	31,660	39,324	24.2	21,121
Plains	26,186	32,291	23.3	20,167
Southwest	27,510	30,484	10.8	18,929
Rocky Mountains	28,973	31,007	7.0	20,165
Far West	36,529	39,679	8.6	22,303

NOTE: Regions are identified in supplemental table 57-2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics, 1994, table 77. National Education Association, Estimates of State School Statistics, 1993–94 (Copyright © 1994 by NEA. All rights reserved.). American Federation of Teachers, Survey and Analysis of Salary Trends 1994, September 1994, table III-2. U.S. Department of Commerce, Bureau of the Census, Statistics Abstract of the United States: 1994, tables 26, 698, and 699.

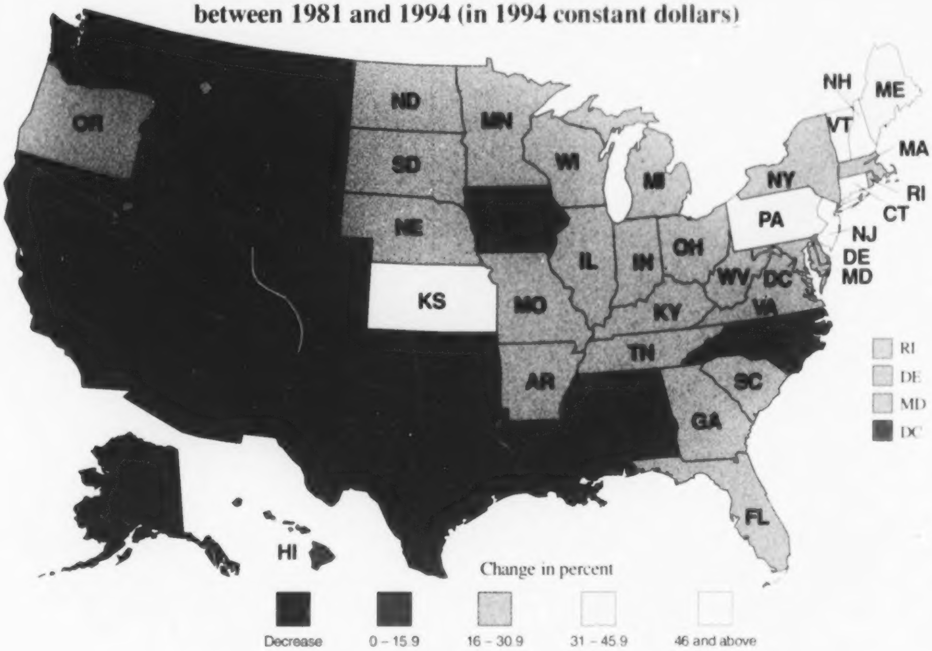
Average salaries of public school teachers

Average annual and beginning salaries (in 1994 constant dollars) for public school teachers: Selected school years ending 1960–94*



* Plotted points for average annual salary for teachers are even years 1960–68 and all years 1970–94. Plotted points for average beginning salary for teachers are even years 1972–88 and all years 1990–94.

Percentage change in public school teacher salaries between 1981 and 1994 (in 1994 constant dollars)


OR
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FL
NY
PA
NH
ME
VT
MA
RI
CT
NJ
DE
MD
HI
RI
DE
MD
DC
Change in percent
Decrease
0 – 15.9
16 – 30.9
31 – 45.9
46 and above

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 77. National Education Association, *Estimates of State School Statistics, 1993–94* (Copyright © 1994 by NEA). American Federation of Teachers, *Survey and Analysis of Salary Trends 1994*, September 1994, table III-2. U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1994*, tables 26, 689, and 699.

Literacy of teachers

- **In 1992, teachers had literacy skills similar to private-sector executives and managers, engineers, physicians, writers and artists, social workers, sales representatives, education administrators, and registered nurses. Scientists were the only professionals who had measurably higher prose literacy skills than teachers.**
- **Although teachers had literacy skills similar to college graduates in many other occupations, their earnings were often substantially less. However, the average number of weeks worked in 1991 was lower for teachers than for college graduates in many other occupations.**

An important issue in the education reform debate is the effect of comparatively low salaries on teacher quality. Prose literacy scores are one of the best available measures of verbal ability, a factor identified by research as being associated with teacher quality. If teachers have lower prose literacy scores relative to college graduates in other occupations, this could indicate that relatively low salaries may not be attracting (or keeping) the most skilled college graduates to (in) the teaching profession. If, however, the literacy levels of teachers are no lower than those of their counterparts in other occupations, other benefits (e.g., job security, a shorter work year, the opportunity to work with children, good retirement benefits, etc.) may be more important for attracting quality teachers than salary alone.

Prose literacy scores, labor market outcomes, and other characteristics of full-time employed bachelor's degree recipients, by occupation: 1992

Occupation	Average prose literacy scores	Average annual earnings in 1991	Average weekly wage last week	Average weeks worked in 1991	Average age	Percentage with graduate degrees	Percentage female
All bachelor's degree recipients	**334**	[1]**$38,530**	[1]**$805**	[1]**49**	[1]**40**	[1]**35**	[1]**38**
Scientists	[1]354	[1]39,320	805	[1]49	[1]36	43	[1]21
Lawyers and judges	352	[1]71,223	1871	[1]49	41	[1]94	[1]17
Accountants and auditors	344	[1]38,463	[1]832	[1]50	[1]37	[1]28	[1]38
Private-sector executives and managers	341	[1]56,044	[1]1,052	[1]51	41	[1]33	[1]26
Postsecondary teachers	340	47,867	924	48	45	[1]90	[1]29
Engineers	339	[1]48,408	952	[1]50	41	[1]32	[1]8
Physicians	335	[1]121,120	[1]2,454	49	44	[1]100	[1]16
Teachers[2]	**333**	**25,983**	**568**	**45**	**42**	**48**	**71**
Writers and artists	332	29,507	589	46	39	33	47
Social workers	332	26,739	551	[1]50	40	38	60
Sales representatives	328	[1]39,872	900	[1]49	42	[1]10	[1]23
Education administrators	326	[1]44,130	[1]888	[1]50	[1]49	[1]79	57
Registered nurses	326	[1]33,981	[1]741	49	38	[1]16	[1]88
Sales supervisors and proprietors	316	32,720	669	[1]51	41	[1]21	[1]20

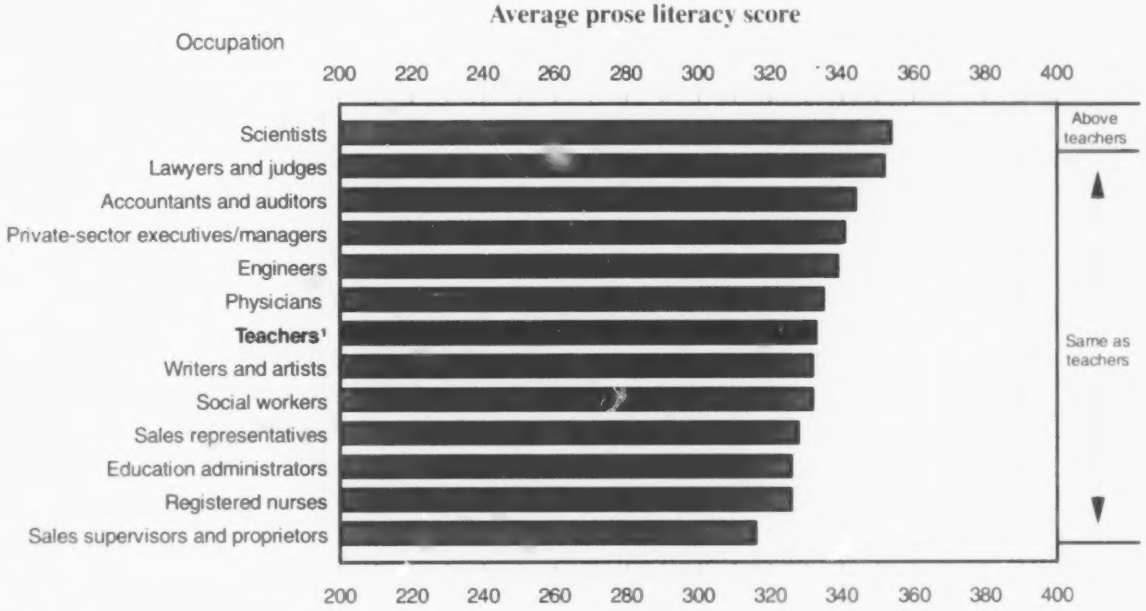
[1] Statistically significant difference from teachers.

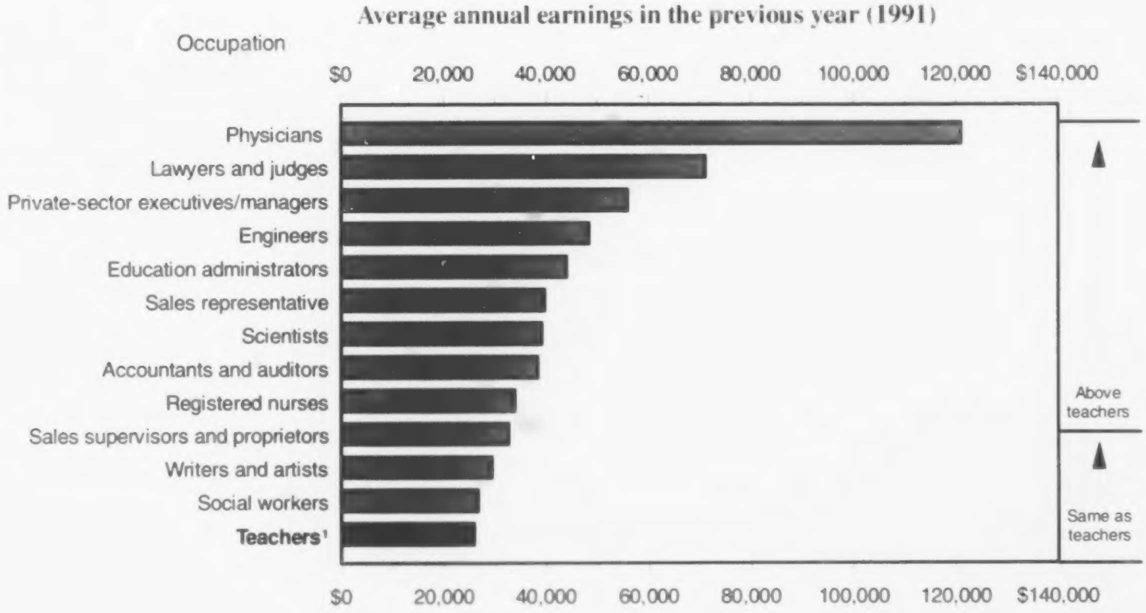
[2] Includes prekindergarten and kindergarten teachers, elementary and secondary school teachers, teachers in special education, and teachers not elsewhere categorized.

NOTE: Individuals scoring between 326 and 375 were able to integrate or synthesize information from complex or lengthy passages. For example, at proficiency level 328, test-takers were able to state in writing an argument made in a lengthy newspaper article. See the supplemental note to *Indicator 31* for a further description of literacy levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Prose literacy scores, labor market outcomes, and other characteristics of full-time employed bachelor's degree recipients, by occupation: 1992


Average prose literacy score


Average annual earnings in the previous year (1991)

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[1] Includes prekindergarten and kindergarten teachers, elementary and secondary school teachers, teachers in special education, and teachers not elsewhere categorized.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Certification and education of full-time public secondary school teachers

- **In 1991, more than 9 out of 10 full-time teachers in public secondary schools were certified to teach in their main assignment field. Seventy-seven percent of these teachers either majored or minored in this field, and 52 percent held a graduate degree in some field.**
- **In 1991, the percentage of teachers who majored or minored in their main assignment field varied across fields, from 62 percent for science teachers to 89 percent for social science teachers.**

Concern about the quality of education in America has included an interest in the qualifications of teachers, especially in mathematics and science. Certification status and educational background are indirect measures of teacher qualifications. Whether a teacher is certified to teach in their field and either majored or minored in their field may indicate the breadth of knowledge in the subject matter they bring to the classroom.

- **Of those teachers with another assignment field in 1991, 64 percent were certified to teach in this field. This percentage was lower for those whose other teaching assignment was English and humanities (62 percent) than for those whose other assignment was mathematics and science (69 percent).**
- **Between 1988 and 1991, there was no change in the percentage of mathematics and science teachers who had majored or minored in their field, a slight increase in the percentage of English teachers who had done so, and a slight decrease in the percentage of arts and foreign language teachers who had majored or minored in their field.**
- **Teachers who taught in schools with less than 20 percent of minority students were more likely to have majored in their main assignment field and to be certified in their other assignment field than were teachers who taught in schools with minority student levels of 20 percent or higher (see supplemental table 59-1).**

Percentage of full-time public secondary school teachers with selected professional characteristics: School years ending 1988 and 1991

	Certified in main assignment field		Certified in other assignment field[1]		Majored or minored in main assignment field		Graduate degree in any field	
Assignment field	1987–88	1990–91	1987–88	1990–91	1987–88	1990–91	1987–88	1990–91
All teachers	**93.3**	**95.2**	**66.7**	**64.2**	**79.0**	**76.8**	**51.5**	**52.1**
English and humanities	94.2	95.6	68.0	61.5	83.4	83.0	51.6	49.4
English	93.7	96.0	69.3	64.0	76.8	81.0	51.3	50.1
Arts and foreign languages	94.8	95.1	66.1	58.4	92.5	85.6	51.9	48.5
Social science	95.0	95.9	67.7	60.7	86.8	88.8	54.7	56.0
Mathematics and science	91.8	94.6	71.4	68.8	69.5	68.7	52.7	54.1
Mathematics	92.1	94.2	74.7	71.0	75.4	74.9	50.6	51.5
Science	91.6	95.0	70.3	68.1	62.9	62.0	55.0	56.8
Education specialties[2]	93.2	95.0	58.3	59.7	79.8	73.4	49.6	51.5

[1] Calculated only for those teachers who have another assignment field. Twenty-six percent of teachers reported having another assignment field in 1987–88, and 22 percent reported having another assignment field in 1990–91.

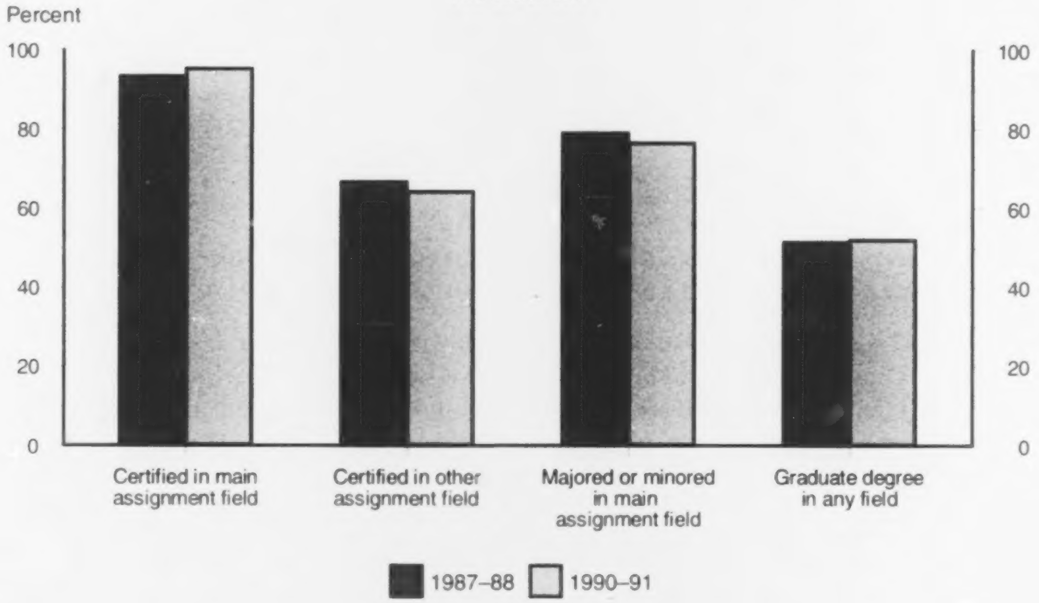
[2] Education specialties are elementary, home economics, physical, vocational, and special education.

NOTE: There are many ways to match major/minor field of study with teaching assignment fields. See the supplemental note for this indicator for definitions of certification and major/minor in assignment field used in this table and in supplemental tables 59-1 through 59-4. Also, see supplemental table 59-5 and the supplemental note for a stricter definition of majoring or minoring in teaching assignment field.

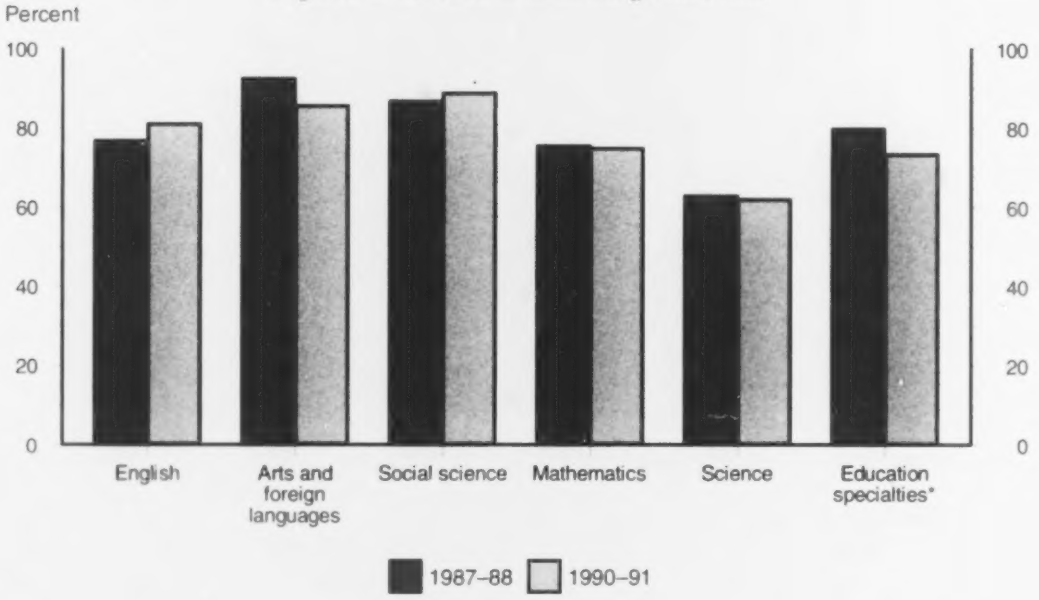
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88 and 1990–91 (Teacher Questionnaire).

Percentage of full-time public secondary school teachers with selected professional characteristics: School years ending 1988 and 1991

All teachers



Majored or minored in main assignment field



* Education specialties are elementary, home economics, physical, vocational, and special education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88 and 1990–91 (Teacher Questionnaire).

Attrition among full-time public and private school teachers

- **More than 90 percent of public full-time teachers who taught during the 1990–91 school year returned to teach in the 1991–92 school year. The rate of private school attrition was almost double public schools', although private school attrition was still less than 10 percent of the full-time private school teacher work force.**

- **Full-time public school teachers were more likely to give retirement as their main reason for leaving the teaching profession than their private school counterparts; retirement accounted for one-third of the attrition from the public school work force, but less than 9 percent of the attrition from the private school work force.**

Teacher attrition is the largest single factor determining demand for additional teachers each year in the nation's schools. Patterns of attrition vary considerably by age, reason for leaving, and other teacher characteristics. While the rate of teacher attrition is not as high today as it was in the 1960s and 1970s, it is still important to study these patterns as indicators of future demand for teachers.

- **In 1991, approximately one out of every five full-time teachers left the teaching profession to pursue a career outside the field of education. Full-time secondary teachers were more likely than full-time elementary teachers to move to jobs outside of education, and full-time private school teachers were more likely than their public school counterparts to move to jobs outside of education (see supplemental table 60-1).**

- **Attrition was highest among full-time teachers age 60 and older and among those under 30, and was lowest among those in their 40s. Attrition of younger full-time teachers was more common in private schools than in public schools (see supplemental table 60-2).**

Change in teaching status of full-time teachers between the 1990–91 and 1991–92 school years, destination of leavers, and reason for leaving, by control and school level

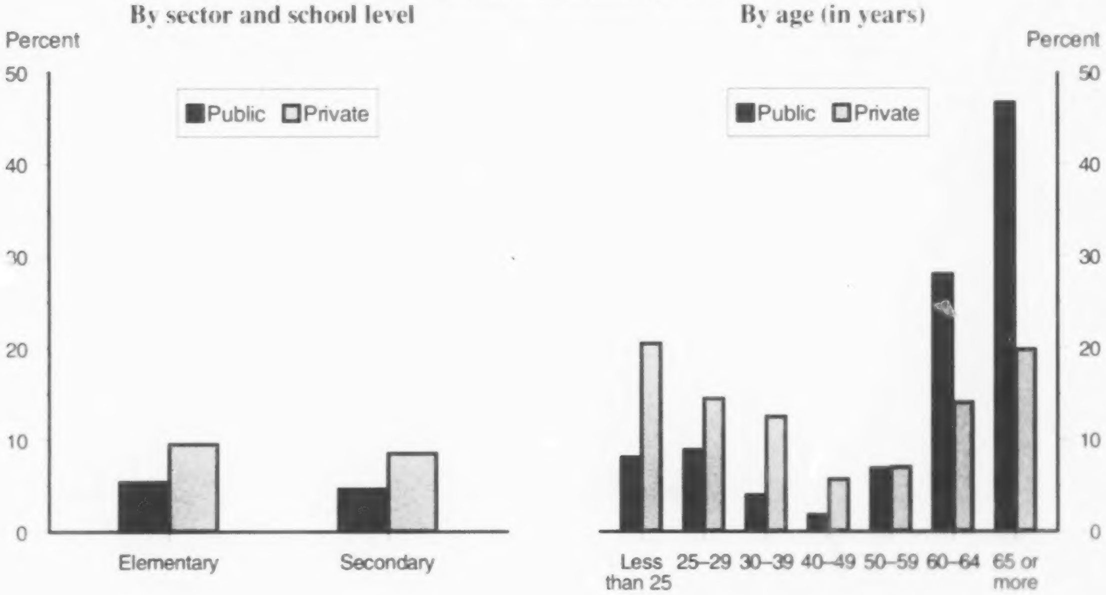
Teaching status, destination, and reason for leaving	Public				Private			
		Full-time teachers				Full-time teachers		
	Total*	Total	Elementary	Secondary	Total*	Total	Elementary	Secondary
Teaching status in 1991-92 compared to 1990-91								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Teaching at same school	87.6	88.3	87.3	90.2	81.1	83.1	83.0	87.1
Moved to another school	7.3	6.7	7.3	5.3	6.6	6.8	7.5	4.4
Left teaching	5.1	5.0	5.4	4.6	12.3	10.1	9.5	8.5
Destination of leavers								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Working in education	15.1	14.1	13.4	15.3	6.2	6.8	8.8	7.5
Working outside education	13.5	13.4	9.3	20.0	35.8	34.8	25.9	31.6
Attending college	6.7	6.7	7.1	6.3	11.0	12.1	8.0	13.4
Homemaking/childrearing	18.6	18.7	23.7	11.0	19.3	19.7	24.4	17.9
Retired	33.3	34.8	34.8	35.8	8.4	8.3	10.2	27.3
Other	11.8	11.3	10.6	11.2	18.8	18.0	22.4	2.6
Reason for leaving								
Retirement	30.4	31.8	30.9	34.6	8.1	8.8	13.1	14.8
Family or personal move	10.0	9.9	11.6	6.1	15.8	15.8	15.5	23.6
To pursue another career	7.8	6.6	4.7	8.3	15.9	16.3	11.5	18.6
Pregnancy/child rearing	10.9	10.4	12.8	6.8	11.4	12.0	13.5	9.1
Dissatisfied with teaching as a career	8.3	8.9	7.5	12.9	4.9	5.4	3.9	7.5

* Total teachers includes both full- and part-time teachers at both elementary and secondary schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 and Teacher Followup Survey, 1991-92.

Change in teaching status of full-time teachers between the 1990–91 and 1991–92 school years and destination of leavers, by sector and school level

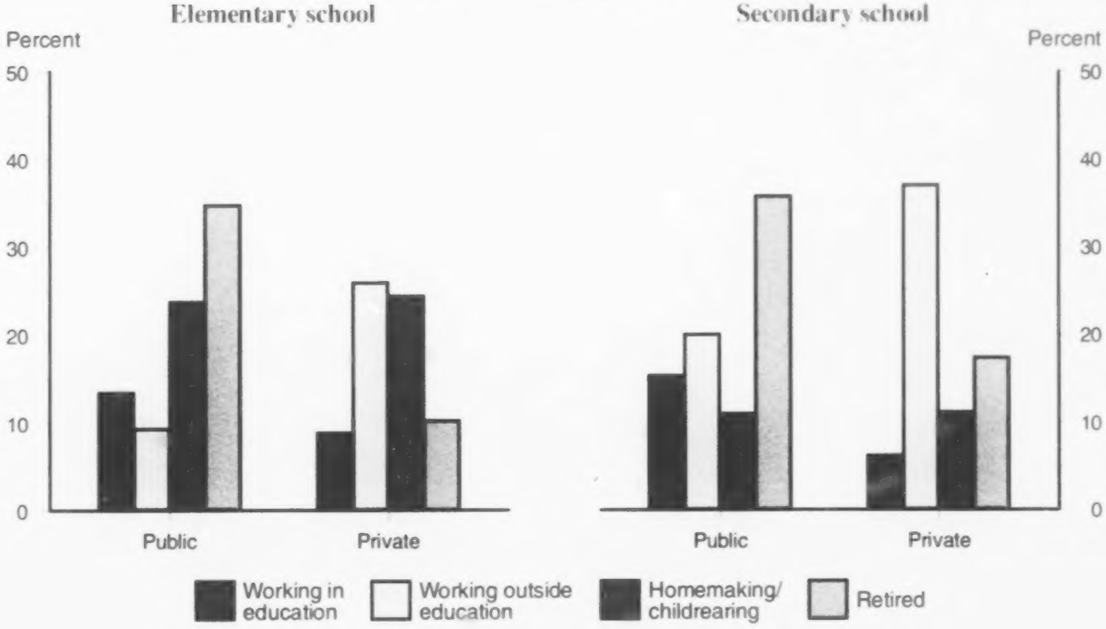
Percent leaving the teaching profession



By sector and school level

By age (in years)

Destination of leavers



Elementary school

Secondary school

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 and Teacher Followup Survey, 1991–92.

Supplemental Tables and Notes

Table 1-1 Percentage of the population enrolled in school, by age: October 1970–93

October	Age															
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1970	13.2	28.7	80.6	98.9	99.7	99.8	99.9	100.0	99.9	99.9	99.7	99.0	98.1	94.1	87.2	57.8
1971	13.0	30.6	84.8	98.9	99.6	99.8	99.8	99.9	99.9	99.9	99.8	99.1	98.6	94.5	87.1	59.1
1972	15.8	34.0	85.7	98.5	99.6	99.9	99.8	100.0	99.8	99.9	99.8	98.6	97.7	93.8	85.6	57.5
1973	14.8	35.1	86.8	98.9	99.7	99.7	99.8	99.7	99.9	99.8	99.7	98.6	97.1	93.2	84.5	52.2
1974	20.0	38.3	89.9	99.1	99.7	99.8	99.8	99.8	100.0	100.0	99.9	98.8	97.6	93.7	82.9	53.2
1975	22.1	41.5	90.9	99.4	99.9	99.8	100.0	99.9	99.8	99.8	99.6	98.9	98.1	94.3	84.3	56.2
1976	20.8	42.7	92.3	99.5	99.8	99.8	99.9	99.9	99.8	99.8	99.9	98.8	98.2	93.3	86.2	53.0
1977	22.0	43.2	92.4	99.5	99.9	99.9	99.9	99.9	99.8	99.7	99.0	100.0	98.3	93.9	84.9	56.9
1978	25.7	44.7	92.1	99.1	99.6	99.8	99.9	99.4	99.6	99.6	99.6	99.3	98.4	94.7	85.0	52.4
1979	25.4	46.1	93.0	99.2	99.4	99.6	99.9	99.8	99.8	99.5	99.9	99.1	98.0	94.4	85.3	55.9
1980	27.6	47.2	93.2	99.4	99.5	99.5	99.7	99.6	99.7	99.8	99.7	98.7	98.5	93.9	85.2	54.6
1981	27.6	45.4	90.2	98.9	99.6	99.7	99.7	99.9	99.7	99.6	99.9	99.0	97.7	94.6	87.3	57.9
1982	27.6	46.1	91.5	99.4	99.8	99.6	99.8	99.9	99.8	99.9	99.5	98.8	98.9	94.6	88.1	57.1
1983	28.2	47.6	92.6	99.0	99.5	99.7	99.6	99.8	99.7	99.9	99.7	99.0	98.5	96.3	88.6	58.4
1984	28.5	46.5	91.4	99.1	99.6	99.2	99.[illegible]	99.7	99.7	99.6	99.7	98.3	97.8	95.3	88.5	58.6
1985	29.2	49.5	93.9	99.1	99.6	99.8	99.7	99.7	99.8	99.9	99.7	98.4	98.5	94.9	88.6	59.7
1986	29.3	49.5	91.8	99.4	99.8	99.8	99.8	99.8	99.5	99.7	99.8	98.2	97.9	95.5	89.6	61.0
1987	28.6	47.9	91.3	99.0	99.5	99.7	99.6	99.4	99.5	99.7	99.3	98.9	98.2	95.4	88.1	62.2
1988	27.6	49.2	92.6	99.3	99.7	99.6	99.6	99.9	99.6	99.6	99.7	99.3	98.5	94.6	88.8	62.8
1989	27.1	51.2	91.8	98.4	98.9	99.4	99.4	99.4	99.5	99.2	99.6	99.5	98.2	96.0	89.6	61.6
1990	(*)	(*)	93.2	99.8	99.5	99.9	99.6	99.6	99.6	99.7	99.6	99.6	98.4	95.6	89.5	64.4
1991	28.2	53.0	91.4	99.4	99.3	99.7	99.8	99.8	99.7	99.7	99.6	99.5	98.0	96.5	90.0	65.5
1992	27.7	52.1	92.4	98.6	99.3	99.3	99.5	99.3	99.3	99.5	99.4	99.4	98.9	96.3	91.9	68.1
1993	27.1	53.9	91.8	99.0	99.4	99.5	99.5	99.4	99.7	99.8	99.4	99.4	98.3	96.3	91.6	68.9

October	Age															
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
1970	45.8	39.1	30.7	20.2	16.3	14.7	12.6	10.8	9.6	7.7	7.6	6.4	7.0	5.4	5.2	5.4
1971	47.2	37.7	31.9	21.3	17.2	14.4	15.3	10.4	9.7	6.9	6.0	7.6	5.7	5.9	6.5	5.3
1972	42.7	37.8	31.2	20.5	16.9	15.2	13.8	11.9	9.9	8.4	9.1	7.1	6.8	6.7	5.9	5.6
1973	40.2	33.4	30.2	19.0	14.4	15.5	12.6	11.1	9.5	9.9	6.1	6.5	5.3	5.6	4.7	4.7
1974	39.4	33.4	31.6	20.1	15.9	13.8	14.0	11.5	10.6	11.0	7.7	7.7	7.0	7.0	7.4	6.5
1975	42.9	36.5	31.6	21.9	17.8	14.5	14.2	12.2	10.8	11.4	9.4	9.6	7.5	7.9	7.9	6.7
1976	44.8	37.1	30.9	22.3	16.7	16.1	13.4	12.4	11.5	10.2	9.7	8.1	8.2	7.7	6.7	5.4
1977	41.8	37.1	32.9	21.8	17.6	15.4	15.2	12.9	10.7	11.7	10.9	9.7	9.0	8.1	6.5	6.7
1978	42.7	33.7	28.6	21.9	16.2	14.7	11.8	11.0	10.0	9.4	8.6	8.9	7.9	7.1	5.7	4.2
1979	41.3	35.1	30.0	21.1	17.3	13.7	13.5	12.4	9.8	10.3	9.0	9.0	7.0	8.1	7.2	5.6
1980	43.0	33.9	30.6	22.3	16.7	13.5	12.0	11.2	10.0	8.8	7.9	8.0	8.2	6.5	6.8	6.3
1981	43.4	36.5	29.7	21.9	16.4	14.2	11.6	10.7	9.2	9.3	8.1	8.7	8.3	8.0	6.7	6.2
1982	43.4	38.9	32.7	22.2	17.2	13.8	12.6	11.4	9.4	9.2	9.5	7.4	8.1	7.0	6.3	6.1
1983	46.6	35.8	32.5	24.1	16.4	13.4	13.0	11.1	9.9	8.6	9.1	8.6	7.7	7.7	6.9	5.8
1984	43.1	37.7	31.4	22.5	17.2	13.8	11.4	9.9	10.4	8.8	7.8	6.9	8.0	7.1	5.8	6.0
1985	45.7	38.3	33.8	22.4	15.7	13.4	12.0	10.3	9.6	9.7	9.1	7.9	7.2	6.3	6.7	6.4
1986	49.6	36.8	30.6	25.4	16.4	13.8	11.3	10.4	10.2	9.3	7.8	7.6	7.6	6.8	6.3	5.5
1987	48.8	42.3	34.9	23.2	17.2	12.7	12.7	9.7	8.6	7.3	7.1	6.6	5.5	6.2	5.6	5.3
1988	47.8	42.1	36.0	25.4	17.1	13.2	10.1	9.4	7.9	7.5	6.8	6.4	6.0	6.0	6.2	5.1
1989	50.6	39.0	38.0	27.9	18.5	14.2	12.6	10.2	9.3	7.9	6.9	6.7	6.3	4.9	5.2	5.4
1990	50.6	42.9	36.4	28.1	19.2	16.2	11.8	11.7	9.7	8.7	6.9	6.5	7.6	5.5	4.2	5.4
1991	54.0	43.6	40.5	28.2	20.9	17.0	12.4	11.4	10.7	9.1	7.7	7.0	7.4	6.6	5.4	4.6
1992	54.6	46.6	41.5	29.0	21.9	17.6	13.3	10.2	10.6	7.9	7.4	7.0	7.4	5.6	4.7	5.7
1993	54.4	45.1	40.6	30.7	22.0	18.5	15.1	10.8	8.6	8.9	8.1	7.1	6.4	5.2	5.4	5.4

* Comparable data not available due to a change in survey procedures.

NOTE: School includes nursery school but excludes day care centers, and includes 2- and 4-year colleges and universities but excludes schools with programs of strictly less than 2 years.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 2-1 Percentage of 3- to 4-year-olds enrolled in preschool and kindergarten, by race/ethnicity: October 1971–93

	Enrolled in preschool				Enrolled in kindergarten			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	15.4	(1)	(1)	(1)	6.6	(1)	(1)	(1)
1972	16.6	(1)	(1)	(1)	6.6	(1)	(1)	(1)
1973	17.7	17.8	18.7	13.2	6.4	5.8	10.0	5.6
1974	21.8	22.5	19.6	15.9	7.0	6.5	9.2	9.5
1975	24.4	24.8	25.1	17.9	7.1	6.2	9.3	9.4
1976	22.9	23.6	22.1	13.7	8.4	7.5	12.3	8.4
1977	24.9	25.8	24.4	14.6	7.1	6.4	10.8	4.8
1978	28.4	28.8	31.0	17.7	5.9	5.1	9.7	4.8
1979	28.7	(1)	(1)	(1)	6.4	(1)	(1)	(1)
1980	30.4	31.8	28.3	23.5	6.3	5.6	9.9	5.0
1981	30.0	31.7	28.2	18.1	6.0	5.4	8.8	6.4
1982	30.8	33.2	28.7	14.3	5.7	4.4	9.8	7.5
1983	30.9	33.3	29.1	14.4	6.6	6.1	7.1	9.1
1984	30.4	32.3	29.0	17.0	5.8	5.0	9.5	7.2
1985	32.1	35.2	27.9	20.0	6.8	5.1	14.8	6.9
1986	33.1	36.2	28.8	20.1	5.8	4.5	9.8	8.6
1987	31.8	35.0	25.5	20.8	6.4	4.5	11.4	9.3
1988	32.5	37.1	23.6	15.2	5.7	4.1	9.8	9.3
1989	34.6	38.3	31.1	17.9	4.4	3.8	7.5	4.0
1990	(2)	(2)	(2)	(2)	3.6	3.0	5.0	5.0
1991	34.1	38.5	26.7	19.5	6.4	4.9	10.2	10.6
1992	33.6	37.6	28.8	17.8	6.1	4.7	8.9	10.1
1993	33.7	38.0	29.8	16.6	6.7	5.1	10.3	10.3

[1] Not available.

[2] Comparable data not available due to a change in survey procedures.

NOTE: In the October Current Population Survey (CPS), preschool enrollment is defined as full- and half-day enrollment in nursery school. Additional items were included on the October 1992 CPS that allow investigation of the effect of using a broader definition of preschool. Generally, enrollment increased about 11 percent for both the white and black children when the broader definition was used. For more information, see West, J., and Hausken, E., *Different approaches to counting early childhoold program participation*, Proceedings of the 1994 Annual Meetings of the American Statistical Association, Social Statistics Section.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 2-2 Percentage of 5-year-olds enrolled in preschool, kindergarten, and grades 1 or 2, by race/ethnicity: October 1971–93

	Enrolled in preschool				Enrolled in kindergarten				Enrolled in grades 1 or 2			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	2.1	(1)	(1)	(1)	71.1	(1)	(1)	(1)	10.3	(1)	(1)	(1)
1972	2.0	(1)	(1)	(1)	73.5	(1)	(1)	(1)	10.1	(1)	(1)	(1)
1973	2.3	2.1	3.6	2.9	73.7	74.8	68.3	68.8	10.4	10.6	8.8	11.1
1974	2.6	2.2	4.2	3.4	76.0	78.2	68.8	69.3	11.0	9.9	13.9	14.5
1975	3.3	3.1	4.9	2.7	78.0	80.1	70.3	70.4	9.2	7.8	14.3	11.3
1976	2.4	2.6	2.1	1.3	79.0	79.7	75.0	82.3	10.6	10.2	13.8	6.5
1977	3.3	2.9	4.3	3.7	79.0	80.1	76.1	75.3	9.8	9.1	12.2	9.7
1978	3.4	3.6	4.3	0.0	78.6	79.9	72.6	78.0	9.5	8.9	12.7	8.0
1979	3.8	(1)	(1)	(1)	79.7	(1)	(1)	(1)	9.0	(1)	(1)	(1)
1980	3.0	2.9	3.8	1.6	81.6	83.6	76.3	77.0	7.8	6.3	11.5	11.8
1981	3.5	3.8	2.3	2.9	78.7	80.9	75.0	70.0	7.5	5.5	14.7	9.8
1982	3.2	3.7	3.3	0.4	80.2	81.3	76.9	75.7	7.7	6.8	11.3	9.1
1983	5.7	6.2	3.4	4.9	78.8	80.3	73.4	78.0	7.6	6.1	13.9	9.9
1984	4.3	4.7	2.9	2.3	79.6	80.5	77.5	76.0	6.7	5.6	9.2	11.9
1985	4.7	5.0	4.3	2.7	81.8	83.5	78.4	76.8	7.0	5.9	10.5	10.1
1986	4.1	4.5	1.9	4.0	82.5	83.6	82.0	79.4	4.8	3.5	7.9	6.3
1987	7.4	8.8	1.2	7.0	78.7	77.8	85.5	72.5	5.2	4.3	7.1	8.6
1988	6.6	7.5	4.3	5.0	80.0	81.7	74.0	80.4	6.0	3.8	14.1	6.2
1989	7.2	8.0	4.7	5.6	79.2	80.8	77.6	74.6	5.4	3.6	9.6	8.7
1990	(2)	(2)	(2)	(2)	79.5	79.7	81.0	78.3	4.5	3.2	5.6	8.0
1991	9.3	10.7	6.5	5.0	79.6	80.2	78.7	76.0	5.4	4.6	8.4	7.5
1992	6.8	7.6	5.7	5.1	80.3	80.5	81.0	80.7	5.3	3.8	5.9	8.5
1993	6.5	7.7	3.4	3.6	79.2	80.0	77.4	77.8	6.1	4.8	8.1	7.9

[1] Not available.

[2] Comparable data not available due to a change in survey procedures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 2-3 Percentage of 5-year-olds enrolled in preschool, kindergarten, and grades 1 or 2, by family income: October 1970–93

	Enrolled in preschool				Enrolled in kindergarten				Enrolled in grades 1 or 2			
October	Total	Low	Middle	High	Total	Low	Middle	High	Total	Low	Middle	High
1970	2.4	3.1	2.2	2.5	66.9	46.4	67.4	75.5	10.8	10.5	10.3	12.7
1971	1.9	1.0	2.0	2.0	72.0	62.7	70.5	80.9	10.7	8.1	11.2	10.5
1972	1.9	0.8	1.9	2.4	74.2	65.0	72.4	85.2	9.3	8.4	10.0	7.3
1973	2.3	1.5	2.1	3.4	73.7	67.0	73.8	76.9	10.3	8.2	10.0	12.9
1974	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1975	3.3	3.6	3.3	3.0	78.0	68.6	78.9	80.2	9.2	7.7	8.7	11.4
1976	2.4	1.6	2.3	3.4	79.0	72.4	79.7	80.8	10.6	10.1	10.2	12.3
1977	3.3	5.7	2.7	3.6	79.0	72.7	79.3	82.5	9.8	9.8	9.5	11.1
1978	3.4	2.1	3.0	5.6	78.7	73.9	79.3	79.5	9.5	10.2	9.4	9.4
1979	3.8	3.7	3.8	3.6	79.7	78.7	77.7	88.2	9.0	6.6	10.4	5.6
1980	3.0	2.5	2.8	4.2	81.6	78.1	81.4	84.9	7.8	7.6	7.8	8.0
1981	3.4	5.1	3.2	3.0	78.7	72.4	79.0	82.7	7.4	7.3	7.1	8.9
1982	3.2	2.7	3.3	3.5	80.2	78.3	79.4	84.3	7.7	8.8	7.3	7.8
1983	5.7	3.8	5.5	8.2	78.8	75.7	79.3	80.0	7.6	9.6	6.9	8.2
1984	4.3	3.2	3.6	8.0	79.6	78.5	80.2	78.3	6.7	6.3	6.7	7.5
1985	4.7	2.6	4.6	6.9	81.8	81.8	80.7	85.6	7.0	7.1	7.6	5.0
1986	4.1	2.8	4.0	6.1	82.5	82.2	81.9	85.0	4.8	4.1	5.2	4.1
1987	7.4	3.8	7.7	9.9	78.7	77.0	78.1	81.5	5.2	5.8	5.7	3.3
1988	6.6	4.8	6.7	7.9	80.1	79.6	79.8	81.2	6.0	5.1	5.9	7.0
1989	7.2	4.2	7.6	8.6	79.2	78.7	78.3	81.8	5.4	5.9	5.6	4.6
1990	(2)	(2)	(2)	(2)	79.5	77.6	78.8	83.5	4.5	4.9	4.8	2.8
1991	6.4	4.7	6.0	8.9	79.7	77.9	78.8	83.7	5.4	5.4	5.3	5.5
1992	6.8	5.1	7.3	7.2	80.3	81.3	79.6	81.1	5.3	4.5	5.3	6.1
1993	6.5	5.5	6.1	8.6	79.2	80.9	78.4	79.7	6.1	5.2	6.1	6.8

[1] Not available.

[2] Comparable data not available due to a change in survey procedures.

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 3-1 Participation in center-based early childhood programs before kindergarten and selected characteristics of first-graders, by race/ethnicity: 1993

Selected characteristics	Total	Race/ethnicity		
		White	Black	Hispanic
Percentage of first-graders who ever attended a center-based program[1]	71.5	72.6	76.2	56.6
Age at which first-graders started a center-based program[1] (for those who ever attended)				
Less than 3 years old	26.4	25.5	33.5	19.5
3 years old	34.0	35.1	30.8	32.8
4 years old	33.2	33.1	29.0	40.1
5 years old	6.3	6.4	6.7	7.7
Length of time first-graders enrolled in a center-based program[1] (for those who ever attended)				
Less than 1 year	21.6	22.4	15.2	27.2
One year, less than 2 years	28.4	25.9	35.1	32.6
Two years or more	50.0	51.7	49.7	40.2
Age first-graders started kindergarten[2]				
3 years old	0.5	0.3	1.1	0.3
4 years old	10.2	7.9	14.8	13.6
5 years old	80.7	82.2	76.8	78.9
6 years old	8.7	9.7	7.3	7.2
Length of time first-graders attended kindergarten[2]				
One year	93.8	93.9	91.8	95.8
Two years or more	6.2	6.1	8.2	4.2
Age started first grade				
5 years old	7.9	6.0	15.3	7.2
6 years old	78.2	78.1	73.3	83.5
7 years old and older	13.8	15.8	11.4	9.3

[1] Center-based programs include Head Start, nursery school, prekindergarten, preschool, and day care.

[2] Only includes those students who attended kindergarten. Less than 1 percent of the surveyed population did not attend kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table 3-2 Participation in center-based early childhood programs before kindergarten and selected characteristics of first-graders, by family income: 1993

Selected characteristics	Total	Family income $10,000 or less	$10,001-20,000	$20,001-35,000	$35,001-50,000	$50,001 or more
Percentage of first-graders who ever attended a center-based program[1]	71.5	61.3	62.5	68.5	77.4	87.2
Age at which first-graders started a center-based program[1] (for those who ever attended)						
Less than 3 years old	26.4	24.3	23.5	24.5	25.0	32.7
3 years old	34.0	29.8	25.1	32.0	36.2	42.6
4 years old	33.2	37.9	43.7	34.9	33.1	22.1
5 years old	6.3	8.0	7.8	8.6	5.8	2.6
Length of time first-graders enrolled in a center-based program[1] (for those who ever attended)						
Less than 1 year	21.6	19.0	33.3	24.1	19.9	14.9
One year, less than 2 years	28.4	38.2	32.9	30.9	28.3	16.9
Two years or more	50.0	42.8	33.8	45.0	51.8	68.2
Age first-graders started kindergarten[2]						
3 years old	0.5	0.7	0.0	0.4	0.7	0.5
4 years old	10.2	10.9	12.5	9.2	9.5	9.2
5 years old	80.7	79.7	80.5	80.1	79.7	83.1
6 years old	8.7	8.7	7.0	10.2	10.0	7.2
Length of time first-graders attended kindergarten[2]						
One year	93.8	90.7	93.2	95.4	94.2	95.2
Two years or more	6.2	9.3	6.8	4.6	5.8	4.8
Age started first grade						
5 years old	7.9	8.7	11.1	7.3	5.7	6.8
6 years old	78.2	77.9	74.1	77.4	80.8	81.0
7 years old and older	13.8	13.5	14.8	15.3	13.4	11.9

[1] Center-based programs include Head Start, nursery school, prekindergarten, preschool, and day care.

[2] Only includes those students who attended kindergarten. Less than 1 percent of the surveyed population did not attend kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table 3-3 Participation in center-based early childhood programs before kindergarten and selected characteristics of first-graders, by family structure: 1993

		Family structure			
Selected characteristics	Total[1]	Two biological or adopted parents	One biological or adopted parent	One biological and one step parent	Other relatives
Percentage of first-graders who ever attended a center-based program[2]	71.5	72.2	69.5	71.1	74.4
Age at which first-graders started a center-based program[1] (for those who ever attended)					
Less than 3 years old	26.4	24.0	32.2	32.0	11.1
3 years old	34.0	36.5	27.0	31.3	51.9
4 years old	33.2	33.6	33.5	30.3	30.5
5 years old	6.3	5.9	7.3	6.4	6.4
Length of time first-graders enrolled in a center-based program[1] (for those who ever attended)					
Less than 1 year	21.6	22.0	21.1	20.7	16.4
One year, less than 2 years	28.4	26.4	29.8	28.6	55.3
Two years or more	50.0	51.6	49.1	50.6	28.4
Age first-graders started kindergarten[3]					
3 years old	0.5	0.5	0.3	0.5	1.9
4 years old	10.2	9.6	12.9	5.5	8.8
5 years old	80.7	80.7	80.1	83.4	76.7
6 years old	8.7	9.1	6.7	10.7	12.6
Length of time first-graders attended kindergarten[3]					
One year	93.8	94.5	93.4	92.4	88.7
Two years or more	6.2	5.5	6.6	7.6	11.3
Age started first grade					
5 years old	7.9	6.4	10.1	4.8	21.1
6 years old	78.2	79.2	76.8	85.5	56.5
7 years old and older	13.8	14.3	13.1	9.7	22.4

[1] Children living with only one step parent or with foster parents are included in the total but are not shown separately.

[2] Center-based programs include Head Start, nursery school, prekindergarten, preschool, and day care.

[3] Only includes those students who attended kindergarten. Less than 1 percent of the surveyed population did not attend kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table 3-4 Participation in center-based early childhood programs before kindergarten and selected characteristics of first-graders, by parents' highest education level: 1993

Selected characteristics	Total	Parents' highest education level: Less than high school	High school graduate or equivalent	Some college[1]	College graduate[2]
Percentage of first-graders who ever attended a center-based program[3]	71.5	53.8	63.8	74.6	84.6
Age at which first-graders started a center-based program[3] (for those who ever attended)					
Less than 3 years old	26.4	19.2	20.3	30.8	29.7
3 years old	34.0	30.0	31.8	32.2	39.2
4 years old	33.2	39.5	37.8	32.7	27.7
5 years old	6.3	11.4	10.2	4.3	3.4
Length of time first-graders enrolled in a center-based program[3] (for those who ever attended)					
Less than 1 year	21.6	34.4	27.9	18.6	15.6
One year, less than 2 years	28.4	34.4	31.0	30.9	21.5
Two years or more	50.0	31.2	41.1	50.6	62.9
Age first-graders started kindergarten[4]					
3 years old	0.5	0.0	0.1	0.8	0.7
4 years old	10.2	11.5	10.9	9.7	9.3
5 years old	80.7	79.2	80.2	82.0	80.2
6 years old	8.7	9.3	8.8	7.5	9.8
Length of time first-graders attended kindergarten[4]					
One year	93.8	88.9	92.6	95.3	95.4
Two years or more	6.2	11.1	7.4	4.7	4.6
Age started first grade					
5 years old	7.9	8.9	8.9	8.0	5.9
6 years old	78.2	76.0	76.3	79.7	79.8
7 years old and older	13.8	15.1	14.8	12.2	14.1

[1] Includes vocational/technical education after high school or some college.

[2] Includes college graduates, or 1 year or more of graduate or professional school.

[3] Center-based programs include Head Start, nursery school, prekindergarten, preschool, and day care.

[4] Only includes those students who attended kindergarten. Less than 1 percent of the surveyed population did not attend kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Note on duration of time spent in center-based programs

In the National Household Education Survey (NHES), the duration of time spent in center-based preprimary programs is reported as the amount of time a child spends in center-based programs such as Head Start, preschool, nursery school, prekindergarten, or day care. The purpose of this measure is to show the length of time children are in center-based programs before entering kindergarten.

On the NHES questionnaire, parents are asked how long their first-graders participated in each of the following types of programs: Head Start or any nursery school, prekindergarten, preschool, or day care. On the questionnaire, Head Start is separated from the other types of center-based programs that are grouped together. Therefore, if a child was enrolled in nursery school program for 1 year and was simultaneously enrolled in day care, the parent would respond that the child was enrolled in the group of programs for 1 year. However, if a child was enrolled in Head Start for 1 year and simultaneously enrolled in day care, the parent would respond that the child was enrolled in each program for 1 year; this, when summed together, would indicate that the child was enrolled in a center-based program for 2 years.

To eliminate the problem of inconsistent reporting of time spent in center-based preprimary programs, a decision was made to use the longest period of time a child spent in either Head Start or any of the other programs. Therefore, if a parent reported that a child was enrolled in Head Start for 1 year and was enrolled in any other program for 2 years, this child would be assigned a duration value of 2 years.

While this solution might tend to bias the duration data downwards, there is another anomaly in the data that could counteract this downward bias by biasing the data upward. The NHES sample is composed entirely of parents of first-graders who reported the center-based programs in which their children participated before first grade. This indicator, however, focuses on center-based care as an activity that occurs before kindergarten. Because day care is grouped with other forms of center-based care, parents could be reporting the time spent in day care while the student was also enrolled in kindergarten. For example if a student attended a half-day kindergarten program and attended day care for the remainder of the day, because of the design of the questionnaire, the parent might report that the child spent an additional year in day care. Thus, while the duration data are interpreted to mean the amount of time spent in center-based care programs before entering kindergarten, there might be some overlap in the actual duration reported because of the way in which the questionnaire was designed. This problem may tend to overinflate the duration numbers.

In summary, there are two difficulties with the NHES duration data: one that would bias the numbers downward, and one that would bias the numbers upward. The hope is that neither bias is large enough to significantly distort the data.

Table 4-1 Skills and behaviors of 4-year-olds not enrolled in kindergarten, by race/ethnicity: 1993

Skills and behaviors	Total	Race/ethnicity		
		White	Black	Hispanic
	Percentage of children who can:			
Emerging literacy and numeracy[1]	11.4	12.4	11.1	6.0
Identify colors[2]				
All of them	84.2	91.0	73.0	61.4
Some of them	13.7	7.9	22.8	33.1
None of them	2.1	1.1	4.2	5.5
Recognize letters				
All of the letters of the alphabet	27.5	31.2	23.4	11.9
Most of them	29.7	30.2	34.3	19.1
Some of them	35.3	33.8	34.5	46.6
None of them	7.5	4.9	7.8	22.4
Count				
Up to 100 or more	9.5	11.1	6.9	4.6
Up to 50	11.2	11.0	15.7	6.1
Up to 20	41.5	43.8	44.3	28.2
Up to 10	30.1	29.5	22.3	42.1
Up to 5[3]	7.7	4.7	10.9	19.0
Write first name	70.3	73.7	62.9	58.8
Small motor development[4]	71.6	71.9	76.6	61.3
Can button clothes	93.3	92.4	97.3	93.7
Hold pencil properly	93.9	93.5	96.5	93.6
Writes/draws rather than scribbles	77.9	79.2	79.2	66.9
Social and emotional development[5]	28.8	31.3	30.4	17.8
Often has tantrums	23.1	20.0	24.2	37.1
Afraid to speak to strangers	42.6	44.4	30.0	44.0
Fidgets a lot	28.8	25.1	30.9	45.4
Has short attention span	23.1	19.8	23.9	40.6
Can be left with babysitter without fuss	90.6	94.6	86.9	75.4
Speech development[6]	76.8	79.4	71.3	73.8
Speech understandable to strangers	92.4	93.8	88.7	91.6
Started speaking late	15.1	14.4	12.7	16.9
Stutters or stammers	7.3	5.3	11.0	13.3

[1] Percentages for emerging literacy and numeracy are based on children who can identify all colors, recognize all letters of the alphabet, count to 50 or more, and write their own name.

[2] Identify the colors red, yellow, blue, and green by name.

[3] Includes children who cannot count at all.

[4] Percentages for small motor development are based on children who can button clothes, hold a pencil properly, and write or draw rather than scribble.

[5] Percentages for social and emotional development are based on children who do not have tantrums often, who are not afraid to speak to strangers, who do not fidget a lot, who do not have a short attention span, and who can be left with babysitters without a fuss.

[6] Percentages for speech development are based on children whose speech is understandable to strangers, who did not start speaking late, and who do not stutter or stammer.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table 4-2 Skills and behaviors of 4-year-olds not enrolled in kindergarten, by family income: 1993

Skills and behaviors	Total	Family income $10,000 or less	$10,001-20,000	$20,001-35,000	$35,001-50,000	$50,001 or more
		Percentage of children who can:				
Emerging literacy and numeracy[1]	11.4	3.8	9.8	10.2	13.4	20.0
Identify colors[2]						
All of them	84.2	65.4	78.5	86.5	93.0	97.0
Some of them	13.7	30.3	18.9	11.1	5.9	2.9
None of them	2.1	4.3	2.6	2.4	1.1	0.1
Recognize letters						
All of the letters of the alphabet	27.5	14.2	22.7	24.3	35.1	42.3
Most of them	29.7	32.2	26.3	30.0	30.6	29.6
Some of them	35.3	39.5	38.0	40.3	31.1	26.3
None of them	7.5	14.1	13.0	5.4	3.2	1.8
Count						
Up to 100 or more	9.5	4.3	7.0	9.2	10.8	16.2
Up to 50	11.2	7.5	8.8	11.9	14.3	13.5
Up to 20	41.5	39.0	35.6	39.5	47.1	47.7
Up to 10	30.1	33.8	38.5	31.6	25.6	20.1
Up to 5[3]	7.7	15.5	10.1	7.9	2.3	2.5
Write first name	70.3	54.7	63.6	69.9	80.3	83.7
Small motor development[4]	71.6	67.6	69.2	71.5	75.9	73.9
Can button clothes	93.3	95.1	94.6	93.0	92.4	91.3
Hold pencil properly	93.9	94.4	93.1	91.8	96.1	94.9
Writes/draws rather than scribbles	77.9	72.4	74.4	78.9	81.8	82.2
Social and emotional development[5]	28.8	21.5	24.1	27.3	32.7	39.0
Often has tantrums	23.1	28.1	27.9	24.7	15.4	18.1
Afraid to speak to strangers	42.6	40.7	45.4	44.3	44.1	38.4
Fidgets a lot	28.8	36.6	34.3	30.0	23.1	19.5
Has short attention span	23.1	33.2	25.6	25.0	18.4	13.3
Can be left with babysitter without fuss	90.6	77.0	87.8	95.7	94.6	96.5
Speech development[6]	76.8	68.6	76.1	78.8	79.6	80.4
Speech understandable to strangers	92.4	87.4	90.6	92.4	94.0	97.6
Started speaking late	15.1	18.1	14.8	14.1	14.2	14.8
Stutters or stammers	7.3	11.6	7.8	6.0	6.6	5.0

[1] Percentages for emerging literacy and numeracy are based on children who can identify all colors, recognize all letters of the alphabet, count to 50 or more, and write their own name.

[2] Identify the colors red, yellow, blue, and green by name.

[3] Includes children who cannot count at all.

[4] Percentages for small motor development are based on children who can button clothes, hold a pencil properly, and write or draw rather than scribble.

[5] Percentages for social and emotional development are based on children who do not have tantrums often, who are not afraid to speak to strangers, who do not fidget a lot, who do not have a short attention span, and who can be left with babysitters without a fuss.

[6] Percentages for speech development are based on children whose speech is understandable to strangers, who did not start speaking late, and who do not stutter or stammer.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table 4-3 Skills and behaviors of 4-year-olds not enrolled in kindergarten, by family structure: 1993

		Family structure			
Skills and behaviors	Total[1]	Two biological or adopted parents	One biological or adopted parent	One biological and one step parent	Other relatives
		Percentage of children who can:			
Emerging literacy and numeracy[2]	11.4	12.7	9.1	9.3	5.0
Identify colors[3]					
All of them	84.2	88.1	75.6	83.0	71.1
Some of them	13.7	10.4	20.8	16.3	22.7
None of them	2.1	1.5	3.5	0.6	6.2
Recognize letters					
All of the letters of the alphabet	27.5	29.9	23.2	26.6	7.4
Most of them	29.7	29.1	31.0	30.8	31.4
Some of them	35.3	34.2	36.0	38.1	55.0
None of them	7.5	6.9	9.7	4.5	6.2
Count					
Up to 100 or more	9.5	10.2	8.8	4.1	9.9
Up to 50	11.2	11.7	9.8	13.9	6.1
Up to 20	41.5	41.7	41.5	43.4	33.7
Up to 10	30.1	29.5	30.6	34.5	33.4
Up to 5[4]	7.7	7.0	9.4	4.2	16.9
Write first name	70.3	72.4	66.6	67.3	63.9
Small motor development[5]	71.6	72.1	69.8	74.6	70.0
Can button clothes	93.3	92.6	94.1	96.7	100.0
Hold pencil properly	93.9	94.3	92.4	96.0	93.8
Writes/draws rather than scribbles	77.9	78.6	75.9	81.2	73.2
Social and emotional development[6]	28.8	32.2	22.4	23.5	13.8
Often has tantrums	23.1	19.3	30.9	23.5	47.8
Afraid to speak to strangers	42.6	43.3	41.2	43.1	34.8
Fidgets a lot	28.8	25.5	34.1	39.2	42.5
Has short attention span	23.1	19.5	30.3	31.6	26.1
Can be left with babysitter without fuss	90.6	80.5	69.7	68.4	73.9
Speech development[7]	76.8	78.3	74.3	72.7	77.7
Speech understandable to strangers	92.4	93.3	90.9	92.9	81.5
Started speaking late	15.1	14.9	15.3	18.5	5.0
Stutters or stammers	7.3	6.3	9.5	6.7	10.7

[1] Children living with only one parent or with foster parents are included in the total but are not shown separately.

[2] Percentages for emerging literacy and numeracy are based on children who can identify all colors, recognize all letters of the alphabet, count to 50 or more, and write their own name.

[3] Identify the colors red, yellow, blue, and green by name.

[4] Includes children who cannot count at all.

[5] Percentages for small motor development are based on children who can button clothes, hold a pencil properly, and write or draw rather than scribble.

[6] Percentages for social and emotional development are based on children who do not have tantrums often, who are not afraid to speak to strangers, who do not fidget a lot, who do not have a short attention span, and who can be left with babysitters without a fuss.

[7] Percentages for speech development are based on children whose speech is understandable to strangers, who did not start speaking late, and who do not stutter or stammer.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table 4-4 Skills and behaviors of 4-year-olds not enrolled in kindergarten, by parents' highest education level: 1993

Skills and behaviors	Total	Parents' highest education level: Less than high school	High school graduate or equivalent	Some college[1]	College graduate[2]
		Percentage of children who can:			
Emerging literacy and numeracy[3]	11.4	5.7	7.4	11.5	18.6
Identify colors[4]					
All of them	84.2	51.0	78.3	91.7	94.2
Some of them	13.7	40.1	19.8	6.7	5.1
None of them	2.1	8.9	1.9	1.7	0.7
Recognize letters					
All of the letters of the alphabet	27.5	9.3	19.3	29.4	42.5
Most of them	29.7	21.4	31.4	31.7	27.9
Some of them	35.3	44.4	40.4	34.1	26.9
None of them	7.5	24.9	9.0	4.9	2.7
Count					
Up to 100 or more	9.5	4.6	6.2	9.6	15.4
Up to 50	11.2	4.9	8.1	14.6	13.3
Up to 20	41.5	24.0	43.9	41.0	45.1
Up to 10	30.1	44.7	32.4	29.4	22.9
Up to 5[5]	7.7	21.7	9.4	5.4	3.4
Write first name	70.3	54.0	64.1	72.8	81.2
Small motor development[6]	71.6	66.0	71.2	72.0	73.4
Can button clothes	93.3	95.3	95.5	93.1	89.9
Hold pencil properly	93.9	95.2	94.3	92.8	94.4
Writes/draws rather than scribbles	77.9	70.1	74.6	80.6	81.7
Social and emotional development[7]	28.8	13.9	23.4	30.8	38.6
Often has tantrums	23.1	41.2	25.8	20.8	15.9
Afraid to speak to strangers	42.6	44.3	47.2	40.7	38.3
Fidgets a lot	28.8	47.7	30.2	28.4	21.1
Has short attention span	23.1	44.0	25.7	22.3	13.7
Can be left with babysitter without fuss	90.6	75.6	87.2	94.1	95.9
Speech development[8]	76.8	66.9	75.9	79.4	78.4
Speech understandable to strangers	92.4	81.6	90.7	94.4	96.0
Started speaking late	15.1	15.7	14.5	13.8	17.4
Stutters or stammers	7.3	16.3	7.9	5.9	5.2

[1] Includes vocational/technical education after high school or some college.

[2] Includes college graduates, or 1 year or more of graduate or professional school.

[3] Percentages for emerging literacy and numeracy are based on children who can identify all colors, recognize all letters of the alphabet, count to 50 or more, and write their own name.

[4] Identify the colors red, yellow, blue, and green by name.

[5] Includes children who cannot count at all.

[6] Percentages for small motor development are based on children who can button clothes, hold a pencil properly, and write or draw rather than scribble.

[7] Percentages for social and emotional development are based on children who do not have tantrums often, who are not afraid to speak to strangers, who do not fidget a lot, who do not have a short attention span, and who can be left with babysitters without a fuss.

[8] Percentages for speech development are based on children whose speech is understandable to strangers, who did not start speaking late, and who do not stutter or stammer.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table 5-1 Percentage of students who used a computer at school and/or at home, by selected characteristics: 1984

Current education level, race/ethnicity, and family income level*	Used a computer at school and at home	Used a computer at school but not at home	Used a computer at home but not at school	Used a computer at school or at home
Total	**5.5**	**23.0**	**6.5**	**35.0**
Preschool				
Total	0.7	4.1	7.2	12.1
White	0.9	4.2	8.8	13.9
Black	0.0	3.2	2.1	5.3
Hispanic	0.0	4.5	1.7	6.1
Low	0.0	2.8	0.3	3.0
Middle	0.2	3.9	5.8	10.0
High	1.9	4.9	11.9	18.7
Kindergarten				
Total	1.0	5.7	6.6	13.4
White	1.3	6.4	7.8	15.4
Black	0.2	2.0	4.3	6.6
Hispanic	0.0	3.8	2.9	6.7
Low	0.0	2.0	1.3	3.3
Middle	0.7	5.5	6.2	12.4
High	3.0	10.4	13.5	26.9
Grades 1-6				
Total	6.2	25.1	5.9	37.2
White	7.8	28.6	7.0	43.4
Black	2.0	13.5	3.3	18.8
Hispanic	1.4	15.5	2.2	19.1
Low	1.0	18.1	1.5	20.6
Middle	4.8	25.4	5.2	35.4
High	14.0	29.5	11.1	54.5
Grades 7-12				
Total	6.5	24.2	7.8	38.5
White	7.7	25.9	9.3	43.0
Black	2.7	17.2	2.6	22.6
Hispanic	1.7	21.1	2.2	25.1
Low	1.2	20.7	2.4	24.3
Middle	5.3	24.9	5.5	35.7
High	11.4	24.4	14.7	50.4
Grade 13 and above				
Total	5.0	26.7	5.5	37.1
White	5.3	26.4	6.0	37.7
Black	2.8	26.0	2.6	31.4
Hispanic	2.8	29.7	2.6	35.1
Low	2.5	30.4	2.3	35.3
Middle	4.2	26.1	4.5	34.7
High	7.0	26.2	7.9	41.1

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 5-2 Percentage of students who used a computer at school and/or at home, by selected characteristics: 1989

Current education level, race/ethnicity, and family income level*	Used a computer at school and at home	Used a computer at school but not at home	Used a computer at home but not at school	Used a computer at school or at home
Total	**11.6**	**33.9**	**8.2**	**53.7**
Preschool				
Total	1.4	6.9	9.1	17.4
White	1.7	7.5	10.2	19.4
Black	0.0	5.3	5.1	10.5
Hispanic	0.0	4.8	3.1	7.8
Low	1.2	6.3	4.4	12.0
Middle	1.0	6.1	6.9	14.0
High	2.1	8.3	14.4	24.8
Kindergarten				
Total	3.5	16.8	6.6	26.9
White	4.6	19.3	8.1	32.1
Black	0.6	8.9	2.1	11.6
Hispanic	0.0	12.5	3.1	15.6
Low	0.5	9.4	0.8	10.7
Middle	2.8	17.9	4.6	25.3
High	7.7	19.6	16.5	43.8
Grades 1-6				
Total	12.0	42.1	4.6	58.8
White	15.2	45.4	5.7	66.3
Black	4.3	31.6	1.9	37.9
Hispanic	4.0	38.5	1.2	43.7
Low	2.3	38.6	1.1	42.0
Middle	9.4	44.5	4.1	58.1
High	26.0	38.4	8.6	73.0
Grades 7-12				
Total	13.1	33.9	10.0	57.0
White	15.5	33.4	12.1	61.0
Black	6.0	35.7	3.6	45.4
Hispanic	5.7	33.2	4.4	43.3
Low	4.0	38.3	2.6	44.9
Middle	10.5	35.8	7.9	54.3
High	23.2	27.6	18.1	68.9
Grade 13 and above				
Total	13.8	30.9	12.3	56.9
White	14.8	29.9	13.4	58.1
Black	6.8	35.6	5.7	48.1
Hispanic	6.7	31.9	9.1	47.7
Low	12.7	37.5	9.0	59.1
Middle	11.5	30.2	10.5	52.2
High	17.6	29.1	16.3	62.9

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 5-3 Percentage of students who used a computer at school and/or at home, by selected characteristics: 1993

Current education level, race/ethnicity, and family income level*	Used a computer at school and at home	Used a computer at school but not at home	Used a computer at home but not at school	Used a computer at school or at home
Total	**18.8**	**40.3**	**9.1**	**68.1**
Preschool				
Total	3.2	8.8	12.6	24.7
White	3.4	8.8	14.6	26.8
Black	0.4	8.6	6.7	15.7
Hispanic	3.5	8.6	3.3	15.4
Low	0.1	9.1	0.9	10.1
Middle	2.9	8.6	9.2	20.6
High	5.1	9.1	23.0	37.2
Kindergarten				
Total	8.6	28.1	7.4	44.1
White	11.8	31.9	9.5	53.1
Black	0.8	20.7	1.9	23.5
Hispanic	2.2	19.8	3.2	25.2
Low	0.8	28.0	1.0	29.8
Middle	6.4	28.2	7.2	41.7
High	21.6	28.0	14.1	63.7
Grades 1–6				
Total	19.7	50.0	4.3	74.0
White	25.3	49.6	5.2	80.1
Black	6.2	50.4	2.5	59.1
Hispanic	5.4	52.4	1.7	59.5
Low	3.3	56.5	0.8	60.5
Middle	15.3	53.7	3.5	72.6
High	42.6	35.9	8.9	87.3
Grades 7–12				
Total	20.6	40.7	9.2	70.4
White	25.7	37.8	11.3	74.8
Black	7.9	47.2	3.3	58.3
Hispanic	6.4	50.3	3.8	60.5
Low	4.6	48.6	1.5	54.8
Middle	16.5	44.7	7.2	68.4
High	37.7	27.8	17.6	83.0
Grade 13 and above				
Total	21.1	33.6	16.9	71.6
White	22.3	31.7	18.6	72.6
Black	15.8	41.3	8.7	65.8
Hispanic	14.4	37.6	12.2	64.2
Low	17.4	40.5	11.3	69.1
Middle	18.8	34.0	15.3	68.1
High	26.4	29.8	22.1	78.3

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in-between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 6-1 Percentage of high school students in grades 10–12, aged 15–24, enrolled the previous October who were enrolled again the following October or who had completed high school, by sex and race/ethnicity: October 1972–93

							Male			Female		
October	Total	Male	Female	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
1972	93.9	94.1	93.7	94.7	90.5	88.8	95.0	90.2	88.5	94.4	90.7	89.1
1973	93.7	93.2	94.3	94.5	90.1	90.0	94.0	88.2	92.1	95.0	91.8	88.2
1974	93.3	92.6	94.0	94.2	88.4	90.1	93.4	89.2	87.2	95.1	87.7	92.9
1975	94.2	94.6	93.9	95.0	91.3	89.1	95.3	91.6	89.7	94.6	91.0	88.4
1976	94.1	93.5	94.8	94.4	92.6	92.7	93.7	91.5	92.4	95.1	93.7	92.9
1977	93.5	93.1	93.9	93.9	91.4	92.2	93.4	92.2	90.2	94.4	90.7	94.7
1978	93.3	92.5	94.1	94.2	89.8	87.7	93.6	89.0	84.1	94.9	90.5	91.5
1979	93.3	93.2	93.3	94.0	90.1	90.2	93.6	92.2	89.5	94.3	88.3	90.9
1980	93.9	93.3	94.5	94.8	91.8	88.3	94.3	92.3	82.4	95.2	91.3	93.3
1981	94.1	94.0	94.2	95.2	90.3	89.3	94.8	90.6	89.3	95.5	90.0	89.3
1982	94.5	94.2	94.9	95.3	92.2	90.8	95.1	91.1	90.5	95.4	93.4	91.2
1983	94.8	94.2	95.3	95.6	93.0	89.9	95.3	93.1	86.2	96.0	92.9	93.8
1984	94.9	94.6	95.2	95.6	94.3	88.9	95.2	94.0	87.7	95.9	94.5	89.8
1985	94.8	94.6	95.0	95.7	92.2	90.2	95.4	91.7	90.6	95.9	92.7	90.0
1986	95.3	95.3	95.3	96.3	94.6	88.1	96.2	94.9	87.6	96.3	94.3	88.7
1987	95.9	95.7	96.2	96.5	93.6	94.6	96.1	93.8	95.2	96.9	93.3	94.0
1988	95.2	94.9	95.6	95.8	94.1	89.6	95.7	93.8	87.7	95.9	94.4	91.8
1989	95.5	95.5	95.5	96.5	92.2	92.2	96.3	93.0	92.2	96.7	91.4	92.3
1990	96.0	96.0	96.1	96.7	95.0	92.1	96.5	95.8	91.3	96.9	94.3	92.8
1991	96.0	96.2	95.8	96.8	94.0	92.7	97.2	94.7	89.9	96.3	93.2	95.4
1992*	95.5	96.1	95.1	96.3	95.0	91.8	96.5	96.7	92.4	96.0	93.3	91.0
1993*	95.5	95.4	95.7	96.1	94.2	93.3	95.9	93.6	94.9	96.3	94.7	92.0

* Beginning in 1992, the Current Population Survey changed the questions it used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 22* for further discussion.

NOTE: Data for 1987 through 1993 reflect new editing procedures instituted by the Bureau of the Census for cases involving missing data on school enrollment items.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys. U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1993.*

Table 6-2 Continuous attendance and grade level progression rates for students aged 15–24, by sex, race/ethnicity, and grade level the previous October: October 1993

		Sex		Race/ethnicity[1]		
Grade last year	Total	Male	Female	White	Black	Hispanic
			Continuous attendance rate (percent)[2]			
9-11 average	97.0	97.1	97.0	97.2	96.1	96.3
9	98.4	98.4	98.4	99.0	97.2	96.3
10	96.5	96.3	96.7	96.8	95.1	96.2
11	96.1	96.4	95.8	95.9	96.0	96.4
12	64.3	62.9	65.5	66.1	53.5	59.1
13-15 average	82.3	82.3	82.3	83.2	73.0	81.4
13	79.5	78.9	80.0	81.5	64.3	79.5
14	82.2	81.2	83.3	81.4	83.0	82.1
15	88.2	90.9	85.7	89.1	79.0	(3)
16	38.7	44.5	33.0	39.3	(2)	(3)
17	60.5	63.1	58.5	60.5	(2)	(3)
			Grade level progression rate (percent)[2]			
9-11 average	97.1	96.3	97.8	97.8	94.7	96.2
9	97.0	96.0	98.1	97.4	95.1	97.2
10	96.8	96.0	97.7	97.7	94.0	95.1
11	97.4	97.1	97.7	98.3	94.9	96.1
12	94.0	91.4	96.4	94.8	86.2	97.5
13-15 average	88.2	88.2	88.1	88.4	88.8	81.7
13	87.6	87.9	87.3	88.0	88.3	83.4
14	86.4	85.3	87.5	86.5	87.2	79.5
15	92.0	93.1	90.8	92.0	92.7	(3)
16	63.4	66.4	59.5	65.4	(3)	(3)
17	54.7	(3)	50.4	52.8	(3)	(3)

[1] Not shown separately are non-Hispanics who are neither black nor white, but who are included in the total.

[2] The continuous attendance rate is the percentage of those enrolled the previous October who were enrolled again the following October. The grade level progression rate is the percentage of those enrolled two consecutive Octobers who advanced at least one grade level between one October and the next. At most grade levels, the continuous attendance rate is conceptually similar to the school persistence rate of table 6-1, but is numerically slightly different because of data used to measure grade level the previous October. However, the continuous attendance rate for grade 12 is the percentage of students in grade 12 the previous October who enrolled in college (or in grade 12 again) the following October. Similarly, the continuous attendance rate for grade 16 (4th year of college) is the percentage of students in grade 16 the previous October who enrolled in the 5th year of college (or in the 4th year again) the following October.

[3] Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 6-3 Rate, number, and distribution of status dropouts,[1] by sex, race/ethnicity, income, and region: October 1993

Student characteristic	Status dropout rate	Number of status dropouts (in thousands)	Percent of all dropouts
Total	**11.0**	**3,396**	**100.0**
Sex			
Male	11.2	1,715	50.5
Female	10.9	1,681	49.5
Race/ethnicity[2]			
White	7.9	1,707	50.3
Black	13.6	615	18.1
Hispanic	27.5	989	29.1
Family income[3]			
Low	23.9	1,442	42.5
Middle	9.9	1,764	51.9
High	2.7	190	5.6
Region			
Northeast	8.5	488	14.4
Midwest	8.8	674	19.8
South	13.0	1,424	41.9
West	12.5	809	23.8

[1] Status dropouts for 1993 are those persons ages 16-24 in October 1993 who have not completed high school and who are not enrolled at one point in time, regardless of when they dropped out.

[2] Not shown separately are non-Hispanics who are neither black nor white, but who are included in the total.

[3] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; middle income is the 60 percent in-between.

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1993*, table 8 (based on U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1993).

Note on persistence rates

The event dropout rate is the number of dropouts in the past twelve months (or from one October to the next) as a percentage of estimated 10th-, 11th-, and 12th-grade enrollment the previous October. The high school persistence rate is 100 minus the event dropout rate.

The high school persistence rate is defined as the proportion of students enrolled in grades 10, 11, and 12 the previous October who either enrolled again the following October or who graduated from high school. Calculating these rates requires estimating 1) the number who left high school before graduating (recent dropouts), and 2) the number of students enrolled in grades 10, 11, and 12 the previous October. Using the October Current Population Survey (CPS), the first is estimated as the number of persons 15 to 24 years old who were not enrolled during the month of the survey, but who were enrolled 1 year earlier, and who have not completed 12 years of schooling. The second is estimated by the sum of three groups of those enrolled the previous October: 1) recent dropouts, 2) those 15- to 24-year-olds enrolled in grades 11 and 12 during the survey month, and 3) those 15- to 24-year-olds who have completed 12 (or more) years of schooling and who indicate they graduated during the survey year. Those enrolled in special schools are counted as "not enrolled in regular school" and may be classified as recent dropouts if they had been enrolled in a regular school the previous October.

Change in reporting of educational attainment

From 1972 to 1991, educational attainment in the CPS is reported as "years of schooling completed." Individuals with 12 years of schooling completed are regarded as high school graduates, and those with 16 years completed as college graduates. Years of schooling completed is based on the responses to two questions: 1) "What is the highest grade . . . ever attended?" and 2) "Did . . . complete it?" For example, an individual who responds that the highest grade ever attended was the first year of college and that he/she did not complete it is regarded as having completed 12 years of schooling.

Beginning in 1992, the two questions were changed to a single question: "What is the highest level of school ... has completed or the highest degree ... has received?" The earlier high school levels are listed as single summary categories such as "9th grade, 10th grade, or 11th grade." Then, several new categories were added, including "12th grade, no diploma; H.S. graduate - diploma or equivalent; Some college - no degree." Finally, the different college degrees are listed by type, allowing for a more exact understanding of educational attainment. See note to *Indicator 22* for further discussion of the effects of this change in the measurement of educational attainment.

Table 7-1 Average undergraduate tuition, room, and board (in 1994 constant dollars) and as a percentage of the income of all families at selected family income percentiles, by control of institution: 1964–93

	Public institutions				Private institutions			
		Family income percentile				Family income percentile		
Year	Constant dollars	20th	50th	80th	Constant dollars	20th	50th	80th
1964	$4,514	29.0	14.4	9.2	$9,061	58.3	28.8	18.6
1965	4,572	27.7	14.0	9.0	9,325	56.6	28.5	18.3
1966	4,626	25.6	13.4	8.7	9,576	53.1	27.7	17.9
1967	4,643	25.5	13.2	8.5	9,622	52.8	27.3	17.6
1968	4,648	24.0	12.6	8.1	9,657	49.8	26.2	16.9
1969	4,726	23.4	12.4	7.9	9,939	49.1	26.0	16.7
1970	4,808	24.7	12.7	8.1	10,228	52.5	27.1	17.2
1971	4,894	25.6	13.0	8.2	10,520	55.1	27.9	17.7
1972	5,054	25.4	12.8	8.0	10,532	52.9	26.7	16.7
1973	4,828	23.8	12.0	7.5	10,071	49.5	25.0	15.6
1974	4,479	22.5	11.5	7.2	9,751	48.9	25.1	15.7
1975	4,458	23.4	11.8	7.3	9,802	51.4	25.9	16.1
1976	4,523	23.3	11.6	7.3	9,876	50.9	25.3	15.8
1977	4,473	23.1	11.4	7.0	9,852	50.9	25.1	15.5
1978	4,320	21.8	10.8	6.6	9,779	49.3	24.4	15.0
1979	4,139	20.7	10.3	6.4	9,390	46.9	23.4	14.6
1980	4,065	21.9	10.7	6.5	9,371	50.6	24.7	15.1
1981	4,199	23.6	11.5	6.9	9,723	54.6	26.6	15.9
1982	4,453	25.9	12.4	7.2	10,463	60.7	29.0	17.0
1983	4,601	26.4	12.5	7.4	10,947	62.9	29.8	17.5
1984	4,782	26.8	12.7	7.4	11,508	64.5	30.5	17.8
1985	4,870	26.8	12.7	7.4	12,117	66.6	31.7	18.3
1986	5,076	27.0	12.7	7.4	12,909	68.7	32.4	18.9
1987	5,188	27.5	12.9	7.5	13,466	71.4	33.4	19.5
1988	5,234	27.6	13.0	7.5	13,701	72.3	33.9	19.5
1989	5,264	27.5	12.9	7.4	14,046	73.3	34.3	19.7
1990	5,271	27.6	13.1	7.5	14,306	74.8	35.6	20.5
1991	5,514	29.8	14.1	8.0	14,933	80.6	38.1	21.8
1992*	5,601	31.2	14.4	8.2	15,237	84.9	39.1	22.4
1993	5,781	33.0	15.2	8.4	15,766	90.0	41.3	22.9

* Revised from previously published figures.

NOTE: Tuition data are for academic years beginning 1964-93, and family income data are for calendar years 1964-93. Both calendar and school year Consumer Price Indexes (CPIs) were used to calculate constant dollar figures. Higher education institutions include universities, 4-year colleges, and 2-year colleges.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* table 304. U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-60, *Money Income of Families and Persons in the United States,* various years (based on the March supplement to the Current Population Survey).

Table 7-2 Average undergraduate tuition and fees (in 1994 constant dollars) paid by students in higher education institutions, by type and control of institution: Academic years beginning 1964–93

Academic year beginning	Public				Private			
	All	Universities	Other 4-year	2-year	All	Universities	Other 4-year	2-year
1964	$1,138	$1,395	$1,049	$463	$5,093	$6,072	$4,789	$3,286
1965	1,178	1,498	1,104	499	5,288	6,273	4,976	3,519
1966	1,222	1,599	1,150	537	5,477	6,467	5,161	3,753
1967	1,217	1,574	1,152	619	5,576	6,595	5,318	3,835
1968	1,209	1,545	1,152	697	5,669	6,715	5,473	3,919
1969	1,250	1,653	1,184	689	5,934	7,002	5,682	4,002
1970	1,292	1,759	1,222	688	6,198	7,287	5,900	4,082
1971	1,336	1,869	1,258	682	6,467	7,579	6,115	4,164
1972	1,390	1,933	1,554	796	6,483	7,603	6,305	4,170
1973	1,374	1,822	1,452	859	6,237	7,448	6,037	4,086
1974	1,220	1,691	1,265	782	5,976	7,379	5,516	3,859
1975	1,142	1,693	1,236	646	5,990	7,595	5,494	3,762
1976	1,193	1,717	1,404	706	6,145	7,599	5,858	3,966
1977	1,194	1,718	1,391	715	6,125	7,564	5,882	3,981
1978	1,158	1,658	1,329	698	6,121	7,444	5,916	3,908
1979	1,099	1,581	1,247	668	5,895	7,177	5,688	3,883
1980	1,072	1,544	1,218	660	5,904	7,215	5,722	4,073
1981	1,109	1,619	1,263	675	6,141	7,593	5,986	4,047
1982	1,189	1,734	1,394	705	6,612	8,317	6,449	4,481
1983	1,280	1,844	1,511	758	6,968	8,931	6,789	4,452
1984	1,342	1,916	1,544	807	7,347	9,460	7,099	4,818
1985	1,404	2,064	1,555	861	7,778	9,908	7,579	4,934
1986	1,454	2,170	1,640	868	8,302	10,670	8,112	4,842
1987	1,538	2,179	1,776	891	8,820	11,071	8,297	5,252
1988	1,550	2,227	1,828	881	9,001	11,402	8,653	5,812
1989	1,561	2,343	1,852	871	9,381	11,916	8,956	5,983
1990	1,587	2,358	1,864	900	9,578	12,424	9,159	6,081
1991	1,718	2,550	2,044	991	9,980	12,898	9,577	6,085
1992	1,828	2,671	2,249	1,052	10,199	13,393	9,780	6,215
1993*	1,939	2,822	2,368	1,113	10,593	13,812	10,151	6,343

* Preliminary data based on fall 1992 enrollment weights.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* tables 304 and 38.

Table 8-1 Cost of college attendance and student financial aid for undergraduate students, by type and control of institution, dependency and attendance status, and family or household income of student: 1992–93

Type and control of institution, dependency and attendance status, and family or household income of student[1]	Estimated population (thousands)	Tuition and fees	Total cost[2]	Grants	Total aid[3]	Net cost[4]	Expected family contribution[5]	Additional family contribution[6]
Public 4-year institutions								
Dependent, full-time, full-year, 1 institution	2,151	$3,111	$9,816	$963	$2,038	$7,778	$9,253	$2,156
Low income	434	2,686	9,356	2,288	4,073	5,283	2,485	3,337
Lower middle	434	2,893	9,498	1,081	2,671	6,827	5,158	2,777
Upper middle	485	2,995	9,699	636	1,587	8,113	7,735	2,018
High income	627	3,512	10,285	388	949	9,336	18,110	982
Dependent, full-time	2,999	2,947	9,187	855	1,864	7,326	9,347	1,952
Low income	607	2,559	8,820	2,041	3,746	5,070	2,505	3,132
Lower middle	601	2,728	8,878	961	2,422	6,426	5,255	2,429
Upper middle	719	2,846	8,924	509	1,331	7,598	7,840	1,784
High income	831	3,382	9,758	354	890	8,879	18,727	836
Private, not-for-profit 4-year								
Dependent, full-time, full-year, 1 institution	1,110	11,872	18,537	3,787	6,127	12,409	11,264	4,485
Low income	218	9,768	16,097	6,274	9,548	6,549	2,490	5,056
Lower middle	191	11,238	17,925	5,399	9,024	8,914	4,928	5,296
Upper middle	184	12,037	18,642	4,901	7,756	10,886	8,117	4,475
High income	451	12,948	19,781	1,886	3,331	16,449	19,550	3,856
Dependent, full-time	1,427	11,004	17,301	3,455	5,697	11,552	10,927	4,171
Low income	302	8,444	14,232	5,417	8,350	5,872	2,343	4,425
Lower middle	253	10,560	16,905	4,890	8,270	8,590	4,989	4,980
Upper middle	244	11,195	17,422	4,240	6,934	10,407	7,988	4,204
High income	548	12,399	18,958	1,736	3,150	15,752	19,755	3,633
Private, for-profit								
Dependent, full-time	352	5,223	10,510	810	3,154	7,350	5,026	4,330
Low income	145	4,921	9,684	1,498	3,754	5,888	1,865	4,711
Lower middle	111	5,321	10,420	384	3,040	7,353	4,717	4,481
Upper middle	51	6,017	12,324	131	2,436	9,911	7,046	4,542
High income	30	5,689	12,785	184	2,607	10,200	19,409	1,719
Independent, full-time	726	4,748	10,248	1,346	3,395	6,840	2,534	5,467
Low income	337	4,616	9,855	1,712	3,610	6,225	1,112	5,690
Lower middle	186	4,783	10,240	1,198	3,507	6,722	2,375	5,378
Upper middle	115	4,778	10,432	836	2,967	7,449	3,280	5,770
High income	87	5,137	11,530	931	2,923	8,625	7,367	4,403
Public 2-year								
Dependent, full-time	1,413	1,072	6,410	395	600	5,717	7,119	1,886
Low income	336	948	6,199	1,027	1,322	4,848	2,418	2,852
Lower middle	460	1,052	5,995	312	588	5,348	4,685	1,857
Upper middle	308	1,134	7,060	122	247	6,686	6,701	1,992
High income	215	1,311	6,745	83	167	6,367	20,693	199
Independent, part-time	3,894	347	2,661	204	344	2,301	4,921	1,188
Low income	547	467	4,166	653	1,036	3,122	1,533	2,225
Lower middle	859	393	3,152	233	440	2,694	3,975	1,449
Upper middle	1,192	315	2,435	115	209	2,220	5,491	1,100
High income	1,293	294	1,897	78	112	1,759	6,457	657
Private 2-year								
Dependent, full-time	77	3,857	9,122	1,023	2,286	6,779	6,104	2,375
Low income	22	3,620	8,350	2,246	4,087	4,181	2,016	2,906
Lower middle	17	3,841	8,568	662	2,541	6,027	5,740	1,666
Upper middle	20	3,843	9,307	250	891	8,416	6,812	2,609
High income	—	—	—	—	—	—	—	—

— Not available.

[1] The four categories of family income correspond to the four quartiles of family income calculated separately for dependent and independent students. For dependent students, the dividing points between income categories are $27,000; $45,000; and $60,000. For independent students, the dividing points are $10,000; $21,000; and about $36,000.

[2] Includes budget allowances for student living expenses and is adjusted for less than full-time or full-year attendance.

[3] Includes grants, loans, work-study earnings, and other forms of aid, such as PLUS loans to parents.

[4] Total cost minus total aid.

[5] Expected family contribution (EFC) is calculated using the Congressional Methodology (CM) and is dependent on family income and assets and number of siblings in college. The student is also expected to contribute from summer job earnings. However, there are exceptions and EFC can be zero.

[6] Total cost minus total aid (exluding certain aid, such as PLUS loans to parents, that can be used to finance EFC) minus EFC. However, EFC is greater than net cost for many students, particularly those from high income families. "Additional family contribution" (AFC) is set to zero for those students. Thus, the average of AFC is greater than the difference between average net cost and average expected family contribution in the previous two columns.

NOTE: See supplemental note for further discussion of financial aid concepts and their calculation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study: 1993 (Data Analysis System).

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Supplemental note for *Indicator 8*

The following definitions are used in the tables of *Indicator 8* and may clarify who or what is included or excluded in the various statistics.

Family income: For dependent students, the four categories, "low income," "lower middle," "upper middle," and "high income" are calculated on the basis of the income of their parents and correspond to the four quartiles of the distribution of parental family income. For independent students, the calculation is the same but is based on the income of the student and their spouse. It is the sum of adjusted gross income for the 1991 calendar year and any untaxed income.

Dependency status: Students were considered independent of their parents for financial aid purposes if the institutional records indicated they were independent or if one of the following seven criteria were met: 1) the student was 24 years old on 12/31/92; 2) the student was a veteran; 3) the student was an orphan or a ward of the court; 4) the student had legal dependents other than a spouse; 5) the student was married and not claimed as a dependent on a parent's 1992 tax return; 6) the student was a graduate student and not claimed as a dependent on a parent's 1992 tax return; and 7) the student was single, an undergraduate, had not been claimed as a dependent on a parent's tax return for the previous 2 years, and was self-sufficient for 2 years prior to receiving any federal aid.

Tuition and fees: The actual amount of tuition charged the student for all terms attended at all institutions during the 1992–93 academic year.

Total cost: The sum of tuition, fees, and the student budget for nontuition expenses. The latter includes the cost of books and supplies, room and board, and commuting and other costs. The latter is also adjusted for students who attended less than full time for the full 1992–93 academic year. If the student was enrolled less than full time/full year, the student budget allowance for nontuition expenses was set equal to 75 percent of the allowance for full-time, full-year students during months the student attended at least half time but less than full time, and to 25 percent during months the student attended less than half time.

Grants: Total amount of all grants from federal, state, institutional, or other sources such as employer-paid tuition and National Merit Scholarships.

Net cost: Total cost (total student budget allowance, tuition and nontuition combined, adjusted for actual attendance status) minus total aid. Total aid is comprehensive and includes, for example, SLS loans (federal supplemental loans for students) and PLUS loans to parents (federal loans to parents with at least half-time dependent students) and aid received from the Veteran's administration and the Department of Defense..

Expected family contribution (EFC): Used to calculate a student's need for financial aid. The most widely used methodology during the 1992–93 academic year was the Congressional Methodology (CM). The CM EFC is the sum of two components: a student contribution, and a parent contribution. The student is expected to contribute from savings and from summer jobs. The amount the parents are expected to contribute depends on their income and assets and other children in college. The EFC variable used in this indicator was taken from the student's financial aid records if available, computed using the CM if all the needed information was available, and imputed using regression methods otherwise. This variable can be interpreted as what is a reasonable amount for the student and family to contribute from currently available resources toward the student's postsecondary education.

Additional family contribution: Equal to total cost (see above) minus total aid subject to EFC limitations minus EFC. Negative values were set to zero. Total aid subject to EFC limitations includes Pell grants, Stafford loans, federal campus-based aid, and any other grant aid. It does not include SLS and PLUS loans that may be used to finance EFC. This variable can be interpreted as the amount students and their families must finance in addition to the "expected family contribution" to meet estimated costs of attendance and student living.

Table 9-1 Percentage of high school graduates enrolled in college in the October following graduation, by sex and type of college: October 1972–93

October	Male			Female		
	Total	2-year	4-year	Total	2-year	4-year
1972	52.7	—	—	46.0	—	—
1973	50.0	14.6	35.4	43.4	15.2	28.2
1974	49.4	16.6	32.8	45.9	13.9	32.0
1975	52.6	19.0	33.6	49.0	17.4	31.6
1976	47.2	14.5	32.7	50.3	16.6	33.8
1977	52.1	17.2	35.0	49.3	17.8	31.5
1978	51.1	15.6	35.5	49.3	18.3	31.0
1979	50.4	16.9	33.5	48.4	18.1	30.3
1980	46.7	17.1	29.7	51.8	21.6	30.2
1981	54.8	20.9	33.9	53.1	20.1	33.0
1982	49.1	17.5	31.6	52.0	20.6	31.4
1983	51.9	20.2	31.7	53.4	18.4	35.1
1984	56.0	17.7	38.4	54.5	21.0	33.5
1985	58.6	19.9	38.8	56.8	19.3	37.5
1986	55.8	21.3	34.5	51.9	17.3	34.6
1987	58.3	17.3	41.0	55.3	20.3	35.0
1988	57.1	21.3	35.8	60.7	22.4	38.3
1989	57.6	18.3	39.3	61.6	23.1	38.5
1990	58.0	19.6	38.4	62.2	20.6	41.6
1991	57.9	22.9	35.0	67.1	26.8	40.3
1992	*60.0	*22.1	*37.8	63.8	23.9	40.0
1993	58.7	22.4	36.3	64.0	22.4	41.6

— Not available. The first year for which data by type of college and sex is 1973. Data were not collected by type of college and sex in 1972.

* Revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 9-2 Percentage of high school graduates enrolled in college in the October following graduation, by race/ethnicity and type of college: October 1972–93

	White			Black			Hispanic		
October	Total	2-year	4-year	Total	2-year	4-year	Total	2-year	4-year
1972	49.7	—	—	44.6	—	—	45.0	—	—
1973	47.8	14.6	33.2	32.5	11.4	21.1	54.1	30.1	24.0
1974	47.2	13.9	33.3	47.2	16.4	30.8	46.9	30.0	16.8
1975	51.1	18.0	33.1	41.7	13.1	28.7	58.0	30.6	27.5
1976	48.8	14.9	33.9	44.4	11.3	33.1	52.7	36.5	16.2
1977	50.8	16.7	34.1	49.5	16.6	32.8	50.8	32.3	18.5
1978	50.5	16.4	34.1	46.4	17.5	28.9	42.0	20.4	21.6
1979	49.9	16.8	33.1	46.7	21.0	25.7	45.0	21.3	23.6
1980	49.8	18.8	31.0	42.7	18.8	23.9	52.3	30.9	21.4
1981	54.5	20.2	34.3	42.7	15.5	27.3	52.1	29.7	22.4
1982	52.7	19.5	33.2	35.8	12.7	23.2	43.2	23.4	19.8
1983	55.0	19.5	35.5	38.2	15.7	22.5	54.2	16.9	37.3
1984	59.0	18.7	40.3	39.8	19.8	20.0	44.3	23.9	20.4
1985	60.1	20.1	40.0	42.2	13.2	29.0	51.0	26.8	24.2
1986	56.8	19.9	36.9	36.9	12.7	24.3	44.0	28.5	15.5
1987	58.6	19.2	39.4	52.2	15.8	36.4	33.5	13.4	20.1
1988	61.1	22.2	38.9	44.4	16.7	27.6	57.1	25.9	31.2
1989	60.7	19.6	41.2	53.4	20.8	32.6	55.1	37.2	17.9
1990	63.0	19.7	43.3	46.8	19.6	27.2	42.7	27.0	15.7
1991	65.4	25.8	39.6	46.4	18.7	27.7	57.2	25.2	32.0
1992	64.3	23.0	41.3	48.2	17.4	30.8	55.0	29.4	25.6
1993	62.9	21.9	41.0	55.6	18.9	36.7	62.2	37.8	24.4

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 10-1 October 1991 activities of October 1990 students of 2-year institutions, by selected characteristics

Student characteristics	Population of all 2-year college students in October (thousands)	Percentage in each activity category						
		Students			Nonstudents			
		2-year school	4-year school pursuing a bachelor's degree	Other post-secondary students	Working full time	Working part time	Unemployed	Not in the labor force
All	**1,650**	**9.1**	**11.0**	**2.7**	**47.1**	**15.6**	**7.1**	**7.2**
Age in 1991								
15–20	373	16.1	18.4	2.4	31.1	19.6	6.7	5.7
21–24	401	9.0	19.1	2.1	46.7	9.2	8.6	5.3
25–29	296	5.9	6.1	2.4	50.2	19.4	8.0	8.0
30–35	232	10.3	2.2	6.6	56.7	13.2	6.2	4.8
36 and over	349	3.8	3.9	1.5	55.8	17.1	5.9	12.0
Race/ethnicity								
White	1,304	9.4	10.6	2.5	47.9	16.4	6.3	6.8
Black	164	10.2	11.7	1.7	50.7	9.4	9.9	6.4
Hispanic	129	4.9	11.6	3.8	43.6	17.0	6.5	12.5
Years of education completed by October 1991								
Less than a full year	418	6.7	3.6	0.5	49.1	21.5	8.0	10.6
1 year of college	467	17.1	7.7	2.0	40.6	15.5	11.6	5.7
2 years of college	527	5.9	21.5	3.0	46.5	13.5	5.4	4.3
3 years of college	238	5.1	7.5	7.5	58.0	10.4	0.9	10.7
Sex								
Male	700	10.1	14.0	3.3	50.0	10.5	8.3	3.6
Female	951	8.4	8.8	2.3	45.0	19.4	6.3	9.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, October 1991.

Table 11-1 Median total time-to-degree and registered time-to-degree for doctorate degrees among U.S. citizens and permanent U.S. residents, by field of study: Year of doctorate 1970–93

Year of doctorate	Total	Humanities	Social and behavioral sciences	Natural sciences	Computer sciences and engineering	Education	Other technical/ professional*
Total time-to-degree (TTD, in Median total years)							
1970	7.9	9.2	7.6	6.1	6.9	12.7	8.5
1971	8.0	9.3	7.4	6.3	7.3	12.8	8.5
1972	8.2	9.2	7.7	6.5	7.6	12.6	8.6
1973	8.5	9.3	7.9	6.8	8.0	12.5	8.8
1974	8.6	9.4	8.0	6.8	7.9	12.5	8.9
1975	8.7	9.6	8.0	6.7	7.9	12.6	9.3
1976	8.8	9.7	8.1	6.8	7.8	12.8	9.5
1977	8.8	10.0	8.2	6.9	7.6	12.7	9.4
1978	9.0	10.1	8.3	6.9	7.8	12.8	9.6
1979	9.1	10.4	8.7	6.7	7.6	12.9	9.6
1980	9.4	10.7	8.8	6.8	7.7	13.3	9.8
1981	9.6	10.7	9.1	6.8	8.1	13.7	9.9
1982	9.7	11.2	9.4	6.9	7.9	13.9	10.2
1983	10.0	11.2	9.6	7.1	7.9	14.3	10.6
1984	10.3	11.5	9.9	7.3	7.9	14.9	10.9
1985	10.5	11.9	10.1	7.3	8.0	15.4	11.5
1986	10.7	12.2	10.2	7.4	7.9	16.0	11.8
1987	10.8	12.2	10.6	7.4	7.9	16.4	11.9
1988	10.9	12.4	10.8	7.5	8.0	17.2	12.4
1989	11.0	12.6	10.6	7.5	8.1	17.7	12.8
1990	11.3	12.4	10.9	7.6	8.2	18.3	12.9
1991	11.3	12.6	10.9	7.6	8.3	18.8	13.6
1992	11.3	12.3	11.0	7.8	8.4	19.3	13.8
1993	11.2	12.2	10.8	7.5	8.7	19.7	14.0
Registered time-to-degree (RTD, in Median total years)							
1970	5.6	6.0	5.6	5.3	5.3	6.3	5.4
1971	5.6	6.1	5.6	5.4	5.4	6.2	5.4
1972	5.8	6.2	5.8	5.6	5.6	6.2	5.6
1973	5.9	6.4	5.9	5.7	5.8	6.2	5.7
1974	6.0	6.6	5.9	5.6	5.7	6.4	5.8
1975	6.0	6.6	5.9	5.6	5.8	6.5	5.8
1976	6.0	6.8	6.0	5.6	5.8	6.4	5.9
1977	6.1	7.0	6.1	5.7	5.8	6.5	6.0
1978	6.2	7.2	6.2	5.7	5.9	6.6	6.0
1979	6.3	7.4	6.5	5.7	5.7	6.7	6.0
1980	6.4	7.6	6.6	5.8	5.8	7.0	6.1
1981	6.5	7.6	6.7	5.8	6.0	7.1	6.3
1982	6.6	8.0	6.9	5.9	6.1	7.3	6.4
1983	6.8	7.9	7.1	6.1	6.0	7.5	6.5
1984	7.0	8.2	7.3	6.2	5.9	7.8	6.7
1985	7.0	8.3	7.4	6.2	6.0	7.8	6.8
1986	7.0	8.3	7.4	6.2	6.1	7.9	7.0
1987	7.1	8.4	7.5	6.3	5.9	8.0	7.1
1988	7.2	8.5	7.7	6.3	6.0	8.3	7.1
1989	7.2	8.4	7.7	6.3	6.2	8.3	7.3
1990	7.2	8.3	7.8	6.4	6.2	8.3	7.3
1991	7.2	8.5	7.7	6.4	6.2	8.2	7.4
1992	7.3	8.3	7.7	6.5	6.3	8.3	7.4
1993	7.3	8.4	7.6	6.5	6.5	8.3	7.6

* Principally composed of agricultural sciences, business and management, communications, health sciences, and other occupationally oriented fields.

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Table 11-2 Median total time-to-degree and registered time-to-degree for doctorate degrees among male U.S. citizens and permanent U.S. residents, by field of study: Year of doctorate 1970–93

Year of doctorate	Total	Humanities	Social and behavioral sciences	Natural sciences	Computer sciences and engineering	Education	Other technical/ professional*
Total time-to-degree (TTD, in Median total years)							
1970	7.6	9.0	7.4	6.1	6.9	12.2	8.1
1971	7.7	9.2	7.3	6.2	7.3	12.4	8.3
1972	8.0	9.0	7.5	6.5	7.7	12.2	8.3
1973	8.3	9.2	7.8	6.8	8.0	12.1	8.6
1974	8.4	9.3	8.0	6.8	7.9	12.2	8.7
1975	8.5	9.7	8.0	6.7	7.9	12.3	9.0
1976	8.5	9.5	8.0	6.7	7.8	12.6	9.2
1977	8.5	9.8	8.2	6.9	7.7	12.4	9.2
1978	8.6	9.8	8.3	6.9	7.8	12.5	9.3
1979	8.7	10.1	8.5	6.6	7.6	12.5	9.5
1980	8.8	10.1	8.7	6.7	7.7	13.2	9.4
1981	8.9	10.1	8.9	6.6	8.1	13.3	9.4
1982	9.0	10.9	9.2	6.8	8.0	13.5	9.8
1983	9.2	10.6	9.4	7.0	7.9	14.1	9.9
1984	9.4	11.1	9.8	7.2	8.0	14.7	10.4
1985	9.6	11.4	9.9	7.2	8.1	15.0	10.6
1986	9.8	11.7	10.1	7.2	8.0	15.6	11.2
1987	9.9	11.6	10.6	7.3	7.9	16.0	11.0
1988	10.0	12.0	10.5	7.4	8.1	16.9	11.8
1989	9.9	12.2	10.5	7.5	8.1	17.1	11.8
1990	10.0	12.0	10.9	7.5	8.1	17.8	11.8
1991	10.1	12.2	10.8	7.5	8.2	18.1	12.8
1992	10.2	11.8	10.8	7.7	8.4	18.9	12.9
1993	10.2	12.0	10.5	7.7	8.7	19.0	12.7
Registered time-to-degree (RTD, in Median total years)							
1970	5.5	6.0	5.6	5.3	5.3	6.3	5.3
1971	5.6	6.1	5.5	5.4	5.4	6.1	5.4
1972	5.8	6.2	5.7	5.6	5.6	6.1	5.5
1973	5.9	6.3	5.9	5.7	5.8	6.2	5.8
1974	5.9	6.6	5.9	5.6	5.7	6.4	5.7
1975	5.9	6.5	5.8	5.6	5.8	6.6	5.9
1976	6.0	6.6	6.0	5.6	5.9	6.6	5.9
1977	6.1	6.8	6.1	5.7	5.8	6.6	5.9
1978	6.1	7.1	6.1	5.8	5.9	6.7	5.9
1979	6.2	7.2	6.4	5.8	5.7	6.9	6.1
1980	6.3	7.3	6.5	5.8	5.8	7.2	6.1
1981	6.3	7.2	6.7	5.8	6.0	7.4	6.2
1982	6.5	7.7	6.9	5.9	6.0	7.6	6.4
1983	6.6	7.7	7.1	6.1	6.0	7.7	6.4
1984	6.8	8.1	7.3	6.2	5.9	8.0	6.7
1985	6.8	8.1	7.4	6.2	6.0	8.0	6.8
1986	6.8	8.1	7.3	6.1	6.1	8.1	7.0
1987	6.9	8.1	7.5	6.2	5.9	8.2	7.1
1988	7.0	8.4	7.6	6.3	6.0	8.5	7.2
1989	7.0	8.2	7.8	6.3	6.2	8.4	7.2
1990	7.0	8.3	7.8	6.3	6.1	8.4	7.1
1991	7.0	8.2	7.8	6.4	6.2	8.4	7.3
1992	7.1	8.1	7.6	6.5	6.3	8.4	7.3
1993	7.1	8.3	7.6	6.5	6.4	8.4	7.4

* Principally composed of agricultural sciences, business and management, communications, health sciences, and other occupationally oriented fields.

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Table 11-3 Median total time-to-degree and registered time-to-degree for doctorate degrees among female U.S. citizens and permanent U.S. residents, by field of study: Year of doctorate 1970–93

Year of doctorate	Total	Humanities	Social and behavioral sciences	Natural sciences	Computer sciences and engineering	Education	Other technical/ professional*
Total time-to-degree (TTD, in Median total years)							
1970	9.7	9.7	8.2	6.4	7.8	15.1	14.9
1971	9.8	9.5	8.3	6.7	7.8	15.0	13.6
1972	9.8	9.3	8.4	6.7	7.7	14.6	12.1
1973	9.7	9.6	8.2	6.8	6.8	14.0	11.2
1974	9.5	9.5	8.1	6.7	7.7	13.4	11.7
1975	9.7	9.6	8.1	6.7	7.2	13.4	11.1
1976	9.8	10.0	8.2	6.9	7.3	13.1	10.8
1977	9.9	10.2	8.1	7.0	6.7	13.3	10.9
1978	10.2	10.5	8.5	7.1	8.4	13.4	11.0
1979	10.3	10.8	8.9	7.0	8.1	13.5	9.9
1980	10.6	11.2	9.0	6.9	7.5	13.6	10.7
1981	10.9	11.4	9.3	7.0	7.2	14.3	11.3
1982	11.1	11.7	9.7	7.1	7.8	14.3	11.0
1983	11.4	11.6	9.8	7.4	8.3	14.7	11.9
1984	11.8	12.0	10.3	7.6	7.4	15.3	12.1
1985	12.2	12.5	10.3	7.6	7.2	15.8	13.1
1986	12.4	12.9	10.4	7.8	7.7	16.5	12.7
1987	12.6	12.7	10.7	7.8	7.7	16.8	13.1
1988	12.7	13.0	11.2	7.8	7.3	17.5	13.5
1989	13.0	13.2	10.9	7.8	7.9	18.1	14.1
1990	13.3	12.7	11.0	8.1	8.5	18.7	14.5
1991	13.3	13.3	11.0	7.8	8.4	19.3	14.7
1992	13.3	13.0	11.2	7.9	8.0	19.6	15.0
1993	13.2	12.4	11.0	7.9	8.4	20.2	15.4
Registered time-to-degree (RTD, in Median total years)							
1970	5.9	6.1	5.9	5.4	6.3	6.2	6.1
1971	6.0	6.3	6.1	5.4	5.6	6.3	5.9
1972	6.0	6.3	6.0	5.4	6.1	6.3	5.9
1973	6.0	6.4	5.9	5.5	5.7	6.1	5.7
1974	6.1	6.5	6.0	5.5	4.9	6.3	5.8
1975	6.2	6.7	6.1	5.7	5.4	6.3	6.0
1976	6.1	7.1	6.1	5.7	5.2	6.1	5.8
1977	6.3	7.4	6.1	5.7	5.5	6.3	5.9
1978	6.4	7.5	6.3	5.7	6.2	6.4	6.2
1979	6.4	7.7	6.5	5.8	5.8	6.5	5.7
1980	6.6	8.1	6.7	5.9	6.1	6.8	6.1
1981	6.7	8.1	6.7	5.9	6.2	6.9	6.4
1982	6.8	8.3	7.0	6.0	6.0	7.1	6.3
1983	7.0	8.2	7.1	6.0	6.1	7.4	6.7
1984	7.2	8.3	7.3	6.1	5.7	7.6	6.7
1985	7.3	8.6	7.4	6.3	5.8	7.6	6.8
1986	7.3	8.6	7.5	6.3	6.1	7.8	7.0
1987	7.4	8.7	7.5	6.3	6.1	7.9	7.0
1988	7.5	8.8	7.7	6.3	5.9	8.2	7.2
1989	7.5	8.7	7.6	6.2	5.9	8.4	7.4
1990	7.6	8.4	7.8	6.5	6.4	8.2	7.4
1991	7.5	8.8	7.7	6.4	6.4	8.1	7.4
1992	7.6	8.5	7.9	6.5	6.3	8.3	7.5
1993	7.6	8.4	7.6	6.5	6.7	8.3	7.8

* Principally composed of agricultural sciences, business and management, communications, health sciences, and other occupationally oriented fields.

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Table 11-4 Median total time-to-degree and registered time-to-degree for doctorate degrees among U.S. citizens and permanent U.S. residents, by primary source of financial support: Year of doctorate 1977–93

			University					
Year of doctorate	Total*	Personal	Teaching assistantship	Research assistantship	University fellowship	Other university	Federal research assistantship	Other Federal
			Total time-to-degree (TTD, in Median total years)					
1977	8.8	12.0	7.8	6.9	7.3	10.3	—	8.3
1978	9.0	12.0	7.9	6.9	7.3	10.3	—	8.2
1979	9.1	12.0	7.9	6.8	7.4	11.5	—	8.3
1980	9.4	12.4	8.1	6.9	7.5	10.3	—	8.2
1981	9.6	12.4	8.2	7.1	7.7	10.4	—	8.0
1982	9.7	12.9	8.5	7.1	8.1	11.1	—	8.2
1983	10.0	13.3	8.7	7.2	8.1	11.0	—	8.2
1984	10.3	13.3	8.6	7.2	8.3	10.5	—	8.1
1985	10.5	13.7	8.8	7.3	8.3	11.3	—	8.1
1986	10.7	14.1	8.9	7.3	8.5	10.9	—	8.0
1987	10.8	14.1	8.8	7.5	8.1	11.6	7.2	9.0
1988	10.9	14.6	8.9	7.4	8.3	12.4	7.3	8.5
1989	11.0	14.8	9.1	7.5	8.5	13.1	7.1	8.0
1990	11.3	15.3	9.1	7.6	8.6	11.9	7.4	8.1
1991	11.3	15.6	8.9	7.6	8.5	10.7	7.1	7.9
1992	11.3	15.9	9.3	7.7	8.3	11.1	7.7	7.8
1993	11.2	16.4	9.2	7.9	8.7	10.9	7.2	8.0
			Registered time-to-degree (RTD, in Median total years)					
1977	6.1	7.2	6.0	5.5	5.6	5.9	—	5.9
1978	6.2	7.1	6.1	5.6	5.6	6.1	—	5.8
1979	6.3	7.2	6.1	5.5	5.6	6.4	—	5.8
1980	6.4	7.4	6.2	5.7	5.8	6.5	—	5.9
1981	6.5	7.4	6.3	5.8	6.0	6.5	—	6.0
1982	6.6	7.7	6.4	5.8	6.0	6.6	—	6.1
1983	6.8	7.8	6.6	5.9	6.2	6.9	—	6.2
1984	7.0	7.9	6.7	6.0	6.4	7.0	—	6.3
1985	7.0	7.9	6.8	6.0	6.3	7.0	—	6.2
1986	7.0	8.0	6.7	6.0	6.4	7.0	—	6.3
1987	7.1	8.0	6.7	6.1	6.2	7.1	6.1	6.4
1988	7.2	8.2	6.8	6.1	6.4	7.6	6.2	6.3
1989	7.2	8.2	6.9	6.2	6.4	7.8	6.1	6.1
1990	7.2	8.2	7.0	6.2	6.5	7.4	6.2	6.2
1991	7.2	8.2	7.0	6.3	6.5	7.1	6.0	6.3
1992	7.3	8.4	7.1	6.3	6.3	7.2	6.5	6.3
1993	7.3	8.4	7.0	6.4	6.6	6.9	6.3	6.3

— Not available.

* Included in the total but not shown separately are doctorates with other primary sources of support including funds from business/employers, foreign governments, state governments, local governments, religious organizations, or welfare.

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Table 12-1 Percentage of currently employed persons who took one or more courses during the last 12 months to improve their skills on their current job, by work status and worker characteristics: 1991

Characteristic	All workers	Full-time workers	Part-time workers
Total	**29.5**	**33.1**	**16.4**
Sex			
Male	29.3	32.3	8.9
Female	29.7	34.2	19.7
Race/ethnicity			
White	31.6	35.3	18.0
Black	20.1	22.6	7.5
Hispanic	22.7	26.8	10.7
Asian or Pacific Islander	20.6	22.4	15.1
American Indian	33.5	35.0	24.6
Age			
17-19	7.3	10.4	4.8
20-24	20.4	26.0	9.5
25-34	29.7	32.0	19.4
35-44	36.1	38.4	23.9
45-54	29.9	32.4	15.8
55-64	28.4	32.3	17.3
65 and older	18.6	29.1	9.2
Educational attainment			
Less than high school graduate	6.8	8.2	2.8
High school graduate	19.0	21.2	10.8
Vocational/trade school	36.7	39.4	23.4
Some college	33.1	39.4	16.1
Bachelor's degree	46.6	49.4	32.4
Advanced degree	50.3	53.4	34.9
Occupation			
Executive, professional, technical	49.9	51.2	41.2
Executive, administrative, managerial	47.1	47.8	34.3
Professional	51.3	53.2	42.8
Technical	49.7	52.2	36.9
Sales and administrative support	24.0	28.4	11.2
Sales	23.5	28.0	10.1
Administrative support	24.3	28.6	11.9
Service	17.8	22.4	12.0
Farming	7.0	7.3	4.0
Precision production, craft and repair	21.4	22.4	9.9
Operators, fabricators, laborers	19.2	21.7	8.0
Machine operators, assemblers, inspectors	21.9	24.3	3.8
Transportation and material movers	17.2	19.9	8.3
Handlers, equipment cleaners, laborers	15.4	16.7	12.2
Industry			
Agriculture, forestry, and fisheries	9.6	10.2	6.5
Mining	28.5	28.5	—
Construction	18.5	20.1	2.5
Manufacturing	28.7	30.8	9.1
Transportation, communications, public utilities	29.2	30.7	17.3
Trade	18.4	22.2	10.0
Finance, insurance, and real estate	43.8	49.8	20.4
Services	32.5	37.4	20.9
Public administration	47.3	49.2	22.5

— Too few workers for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1991 (Adult Education Component).

Table 12-2 Percentage of workers who received skill improvement training at any time while on their current job, by worker characteristics: 1983 and 1991

Worker characteristics	1983	1991
Sex		
Male	35	40
Female	34	41
Age 16 and over	35	41
Age		
16-19	18	18
20-24	28	31
25-34	39	41
35-44	41	48
45-54	37	46
55-64	31	37
65 and over	19	25
Educational attainment		
High school graduate or less	26	29
Some college	41	46
College graduate	54	61
Occupation		
Executive, professional, technical	54	60
Executive, administrative, managerial	47	53
Professional	61	67
Technical	52	59
Sales and administrative support	32	38
Sales	32	35
Administrative support	32	40
Service	23	28
Private household workers	3	6
Service, except private household	25	29
Farming, forestry, fishing	16	21
Precision production, craft and repair	35	38
Operators, fabricators, laborers	19	22
Machine operators, assemblers, inspectors	22	25
Transportation and material moving	18	25
Handlers, equipment cleaners, laborers	14	15
Industry		
Agriculture, forestry, and fisheries	19	23
Mining	35	45
Construction	24	26
Manufacturing	31	38
Durable goods	34	40
Nondurable goods	28	35
Transportation, communications, public utilities	38	46
Trade	24	26
Wholesale	30	34
Retail	22	24
Finance, insurance, and real estate	47	54
Services	41	47
Business and repair services	29	34
Personal services	19	23
Entertainment and recreational services	24	32
Professional and related services	49	55
Public administration	58	68

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *How Workers Get Their Training: A 1991 Update*, Bulletin 2407, August 1992, table 38.

Table 13-1 Explanations of levels of reading proficiency

Level 350: Learns from specialized reading materials

Readers at this level can extend and restructure the ideas presented in specialized and complex texts. Examples include scientific materials, literary essays, and historical documents. Readers are also able to understand the links between ideas, even when those links are not explicitly stated, and to make appropriate generalizations. Performance at this level suggests the ability to synthesize and learn from specialized reading materials.

Level 300: Understands complicated information

Readers at this level can understand complicated literary and informational passages, including material about topics they study at school. They can also analyze and integrate less familiar material and provide reactions to and explanations of the text as a whole. Performance at this level suggests the ability to find, understand, summarize, and explain relatively complicated information.

Level 250: Interrelates ideas and makes generalizations

Readers at this level use intermediate skills and strategies to search for, locate, and organize the information they find in relatively lengthy passages and can recognize paraphrases of what they have read. They can also make inferences and reach generalizations about main ideas and the author's purpose from passages dealing with literature, science, and social studies. Performance at this level suggests the ability to understand specific or sequentially related information.

Level 200: Partial skills and understanding

Readers at this level can locate and identify facts from simple informational paragraphs, stories, and news articles. In addition, they can combine ideas and make inferences based on short, uncomplicated passages. Performance at this level suggests the ability to understand specific or sequentially related information.

Level 150: Simple, discrete reading tasks

Readers at this level can follow brief written directions. They can also select words, phrases, or sentences to describe a simple picture and can interpret simple written clues to identify a common object. Performance at this level suggests the ability to carry out simple, discrete reading tasks.

NOTE: This scale has a range of 0–500 with a mean of 250 and a standard deviation of 50.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 13-2 Percentage of students aged 9, 13, or 17 scoring at or above five levels of reading proficiency: 1971, 1975, 1980, 1984, 1988, 1990, and 1992

Proficiency level	Age	Year						
		1971	1975	1980	1984	1988	1990	1992
Level 350:	9	0	0	0	0	0	0	0
Learns from specialized	13	0	0	0	0	0	0	1
reading materials	17	7	6	[2]5	6	[1,2]5	7	7
Level 300:	9	1	1	1	1	1	[1]2	1
Understands complicated	13	[1]10	[1]10	[1]11	[1]11	[1]11	[1]11	[2]15
information	17	[1]39	[1]39	[1]38	40	41	41	[2]43
Level 250:	9	16	15	18	17	18	18	16
Interrelates ideas and	13	58	59	61	59	59	59	62
makes generalizations	17	[1]79	80	81	[2]83	[1,2]86	[2]84	[2]82
Level 200:	9	59	[2]62	[1,2]68	62	63	59	62
Partial skills and	13	93	93	[2]95	94	95	94	93
understanding	17	96	96	[2]97	[1,2]98	[1,2]99	[2]98	97
Level 150:	9	91	[2]93	[1,2]95	[2]92	93	90	92
Simple, discrete	13	100	100	100	100	100	100	100
reading tasks	17	100	100	100	100	100	100	100

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1971.

NOTE: See table 13-1 for further description of the proficiency levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 13-3 Percentile distribution of reading proficiency scores, by age and race/ethnicity: 1980, 1984, 1988, 1990, and 1992

	Age 9					Age 13					Age 17				
Percentile	1980	1984	1988	1990	1992	1980	1984	1988	1990	1992	1980	1984	1988	1990	1992
								All students							
5	149	141	142	135	141	199	197	200	196	191	209	220	226	220	213
10	165	159	157	150	156	213	210	213	210	208	228	236	242	237	231
25	191	184	184	179	183	235	234	234	233	235	258	263	266	264	259
50	217	213	214	210	214	260	258	258	257	262	288	290	291	291	288
75	241	240	240	240	239	283	282	281	282	287	316	317	316	319	315
90	262	263	263	266	260	302	302	302	302	309	340	340	337	343	338
95	273	277	278	280	272	314	314	314	314	322	354	353	349	356	351
								White							
5	161	152	150	144	153	209	205	204	204	204	226	230	233	229	229
10	175	167	165	160	167	222	218	217	217	219	242	246	247	246	244
25	199	192	192	188	193	243	241	238	240	243	267	271	271	271	268
50	223	220	219	218	221	265	263	262	263	268	294	297	295	298	294
75	246	245	244	247	244	287	286	285	286	292	320	322	320	324	319
90	265	267	267	271	264	306	305	304	306	312	343	343	340	347	341
95	276	280	281	285	276	317	317	316	318	324	357	356	352	360	354
								Black							
5	123	121	125	115	119	179	180	191	182	170	176	202	214	201	188
10	139	135	138	129	132	191	192	202	194	185	191	216	228	217	206
25	165	159	162	153	156	211	213	222	217	210	217	239	251	242	235
50	192	187	188	182	185	233	236	242	243	239	244	264	274	268	263
75	216	213	217	211	214	255	259	264	266	266	270	288	300	294	288
90	236	235	238	236	236	275	280	284	286	287	293	311	321	316	312
95	247	248	252	251	249	286	293	299	299	303	307	324	333	331	328
								Hispanic							
5	123	120	122	125	125	183	181	181	178	165	184	202	204	206	194
10	138	135	140	139	139	195	193	195	191	184	197	217	218	224	208
25	164	161	165	161	163	215	216	219	214	213	225	242	246	250	235
50	192	189	196	189	193	238	240	240	239	242	253	269	274	276	263
75	218	215	222	219	222	259	264	262	262	267	279	295	298	303	289
90	238	236	247	239	245	279	284	284	284	289	307	318	316	327	313
95	250	247	259	253	255	291	296	297	296	303	321	332	328	339	325

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 13-4 Average reading proficiency, by age and parents' highest education level: 1971, 1975, 1980, 1984, 1988, 1990, and 1992

		Age 9		Age 13		Age 17	
Parents' highest education level	Year	Percent of students	Average proficiency	Percent of students	Average proficiency	Percent of students	Average proficiency
Less than high school graduate	1971	[1]10	189	[1]16	238	[1]20	261
	1975	[1]10	190	[1,2]14	239	[1,2]16	262
	1980	[2]6	[2]194	[1,2]10	238	[1,2]13	262
	1984	[2]6	[2]195	[1,2]9	240	[1,2]12	[2]269
	1988	[2]5	192	[2]8	[2]246	[2]9	267
	1990	[2]5	193	[2]8	241	[2]9	[2]270
	1992	[2]5	195	[2]6	239	[2]8	271
Graduated from high school	1971	[1]22	208	32	256	31	283
	1975	[1]24	211	[1]33	255	[1]34	281
	1980	1,K225	[1,2]213	31	254	[1]32	[2]278
	1984	1,K219	209	[1,2]35	253	[1,2]35	281
	1988	[2]16	211	31	253	30	282
	1990	[2]17	209	31	[1]251	30	283
	1992	[2]15	207	28	252	28	280
Some education after high school	1971	[1]33	224	[1]38	270	[1]42	302
	1975	[1]34	222	[1]40	270	[1,2]46	301
	1980	[2]40	[1]226	[1,2]49	271	[1,2]51	299
	1984	[1]36	223	[1,2]45	268	[1,2]50	301
	1988	[2]45	220	[2]52	[2]265	[2]58	300
	1990	[2]42	[2]218	[1,2]50	[2]267	[2]58	300
	1992	[2]44	220	[2]56	270	[2]60	299

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1971.

NOTE: "Percent of students" represents the percentage of all students from each subgroup. Not shown are about one-third of students at age 9 and smaller percentages at ages 13 and 17 who did not know their parents' highest education level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 13-5 Average proficiency scores, by age and grade: 1971, 1975, 1980, 1984, 1988, 1990, and 1992

	Below modal grade[1]		At modal grade[1]		Above modal grade[1]	
Year	Percent	Proficiency	Percent	Proficiency	Percent	Proficiency
			Age 9			
1971	[2]24	[2]178	[2]75	[2]217	[2]1	232
1975	[2]23	[2,3]183	[2]75	[2]218	[2,3]1	226
1980	[2]28	[3]189	[2]71	[3]225	[3,4]0	243
1984	[2,3]34	[2,3]187	[2,3]65	[3]223	[3,4]0	[3]254
1988	[2,3]37	[3]193	[2,3]63	[3]223	1	262
1990	[3]42	[3]189	[3]58	[3]224	[3,4]0	242
1992	[3]43	[3]192	[3]57	[3]224	[3,4]0	243
			Age 13			
1971	[2]28	[2]230	[2]71	[2]265	1	[2]278
1975	[2]28	[2]232	[2]72	[2]265	1	[2]278
1980	[2]28	[3]240	[2]70	[2]266	[3]1	[2]274
1984	[2,3]37	[3]239	[2,3]62	[2]267	[3]1	294
1988	[2,3]39	[3]243	[2,3]60	[2]267	1	[2]272
1990	[2,3]39	[3]243	[2,3]60	[2]266	1	290
1992	[3]43	[3]243	[3]56	[3]272	1	[3]312
			Age 17			
1971	[2]14	[2]238	[2]73	[2]291	[2]13	302
1975	[2]15	[2]242	[2]73	[2]292	[2]12	302
1980	[2]14	[2]244	[2,3]77	[2]291	[3]9	300
1984	[2,3]22	[3]259	[2,3]68	[2,3]296	[3]10	304
1988	[2,3]24	[3]265	[3,3]65	[2,3]296	[2]12	305
1990	[3]26	[3]261	[2,3]65	[3]299	[3]9	310
1992	[3]28	[3]261	[3]64	[3]301	[3]8	300

[1] Modal grade is the most common grade level for students of a particular age. For example, the modal grade at age 9 is fourth grade. Nine-year-olds in fifth grade are above modal grade, and 9-year-olds in third grade are below modal grade for their age.

[2] Statistically significant difference from 1992.

[3] Statistically significant difference from 1971.

[4] Less than 0.5 percent.

NOTE: The modal grades are grade 4 at age 9, grade 8 at age 13, and grade 11 at age 17. The modal grade is lower for 17-year-olds because of differences in age definition and in the time of year the assessment is given, causing more students to be above the modal grade at age 17 than at any other age. For a more complete explanation, see table 13-1.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 13-6 Average reading proficiency, by age and number of reading materials in the home: 1971 and 1992

Number of types of materials in the home	Year	Age 9		Age 13		Age 17	
		Percent of students	Average proficiency	Percent of students	Average proficiency	Percent of students	Average proficiency
0–2	1971	*28	*186	*17	*227	*11	*246
	1992	37	197	22	241	18	269
3	1971	32	*208	*25	*249	*22	*274
	1992	33	214	31	256	27	286
4	1971	*39	223	*58	*266	*67	296
	1992	30	224	48	271	55	299

* Statistically significant difference from 1992.

NOTE: Students were asked whether they had access to each of four types of reading material: newspapers, magazines, books, and encyclopedias.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Note on NAEP cohorts

Three of the NAEP assessments, reading, math, and science, report trends in the progress of students by age. Proficiencies are reported for ages 9, 13, and 17. The modal grades for these age groups are 4th, 8th, and 11th grade. The fourth assessment, writing, is given to students in grades 4, 8, and 11, regardless of their age. In all four subjects, it would appear that the time span between the youngest and middle age/grade is greater than between the middle and oldest group. However, the way age is defined (on a calendar or fiscal year basis) and the time at which each age/grade is assessed (fall, winter, or spring) results in the same length of time (or years of schooling) between the three age groups. A discussion of this methodology follows.

Age is determined on a calendar year basis for 9- and 13-year-olds, but on a fiscal year basis for 17-year-olds. In other words, the reading, math, and science scores in 1992 represent students born in 1982 (9-year-olds), students born in 1978 (13-year-olds), and students born between October 1, 1974, and September 30, 1975 (17-year-olds). The writing scores represent students in grades 4, 8, or 11 at the time of the assessment regardless of age.

In addition to different age definitions, the time of the school year when the assessment is administered varies across age levels: 9-year-olds/4th-graders are tested in the winter; 13-year-olds/8th-graders are tested in the fall; and 17-year-olds/11th-graders are tested in the spring for all the assessments. Since 9-year-olds are tested between January and February of the year they turn 10, and 13-year-olds are tested between October and December of the year they turn 13, the 13-year-olds have had almost 3 $^3/_4$ more years of schooling than the 9-year-olds. Likewise, since 17-year-olds are tested between March and May, they will be between 16 $^1/_2$ and 17 $^1/_2$ at the time of the assessment (the difference is due to the age being determined on a fiscal year basis); thus, they have had about 3 $^3/_4$ more years of exposure to school than 13-year-olds.

These different means of determining a student's age and the various testing times have been adopted in order to measure a uniform period of growth among the three age/grade groups. Comparing age/grade cohorts over time can be more problematic, however. Nine-year-olds in 1988 generally represent the same age cohort as 13-year-olds in 1992, two points in time not quite 4 years apart. However, the 17-year-olds tested in 1992 were generally younger than the 1988 13-year-old age cohort was in 1992. Therefore, care must be taken when examining student cohorts across assessments in different years.

Table 14-1 Explanations of levels of writing task accomplishment

Level 350: Effective, coherent writing	The writing at this level provides clear complete responses to the assigned task. It tends to contain supportive details and discussion that contributed to the effectiveness of the response. This writing is also characterized by an overall unity and coherence not found at the lower levels.
Level 300: Complete, sufficient writing	Responses at this level tend to be complete and to contain sufficient information to accomplish the basic task.
Level 250: Beginning, focused, clear writing	Writing at this level tends to be more focused and clear, containing enough development and detail likely to accomplish the assigned task successfully.
Level 200: Incomplete, vague writing	The writing at this level, although clearer and more detailed than at the previous level, still tends to be vague and incomplete.
Level 150: Disjointed, unclear writing	Writing at this level tends to be too brief and disjointed to be considered a response to the task or, when longer, so vague and unclear that it was hard to understand.

NOTE: This scale has a range of 0–500, with a mean of 250 and a standard deviation of 50.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 14-2 Percentage of students at or above each of five writing proficiency levels, by grade: 1984, 1988, 1990, and 1992

Proficiency levels	Grade	Year			
		1984	1988	1990	1992
Level 350:					
Effective, coherent writing	4	0	0	0	0
	8	[1]0	[1]0	[1,2]1	[2]2
	11	2	1	[1]4	2
Level 300:					
Complete, sufficient writing	4	0	1	0	0
	8	[1]13	[1]13	[1]12	[2]25
	11	39	39	37	36
Level 250:					
Beginning, focused, clear writing	4	10	[2]15	12	13
	8	72	[1]67	[1,2]57	75
	11	89	[1]93	[2]84	87
Level 200:					
Incomplete, vague writing	4	54	56	53	58
	8	98	97	[1,2]93	98
	11	100	100	99	100
Level 150:					
Disjointed, unclear writing	4	93	91	[1]89	93
	8	100	100	100	100
	11	100	100	100	100

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1984.

NOTE: See table 14-1 for further description of the proficiency levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992,* 1994.

Table 14-3 Percentile distribution of writing proficiency scores, by grade and race/ethnicity: 1984, 1988, 1990, and 1992

	Grade 4				Grade 8				Grade 11			
Percentile	1984	1988	1990	1992	1984	1988	1990	1992	1984	1988	1990	1992
						All students						
5	144	135	131	142	216	209	195	214	236	244	227	233
10	157	151	147	157	227	222	208	227	249	255	240	246
25	179	177	174	182	247	242	231	250	269	273	262	266
50	204	207	203	208	268	264	257	275	291	292	288	288
75	229	235	231	233	288	286	282	300	312	311	312	310
90	250	259	255	256	304	305	304	320	330	326	334	328
95	263	274	268	269	313	316	318	332	340	335	347	338
						White						
5	155	151	146	159	224	216	202	220	249	252	235	244
10	167	165	162	172	235	229	215	234	260	263	247	256
25	188	189	186	194	253	248	237	256	277	279	269	275
50	211	216	211	217	273	270	262	280	298	297	294	295
75	233	242	237	240	291	290	287	304	316	314	317	314
90	255	265	260	261	306	309	308	324	333	329	338	331
95	266	278	272	273	315	319	322	335	343	338	350	341
						Black						
5	124	109	105	117	201	194	182	200	222	232	213	216
10	135	122	120	130	212	205	193	212	232	243	225	226
25	160	148	144	152	228	226	216	232	252	258	245	245
50	182	173	172	176	248	247	240	257	270	276	268	264
75	205	200	198	198	265	266	263	282	290	294	291	283
90	228	224	223	218	281	285	284	306	309	309	311	300
95	240	238	239	229	292	296	297	319	318	318	324	309
						Hispanic						
5	130	125	120	132	197	199	187	203	208	228	217	220
10	141	139	135	144	207	210	199	219	216	236	232	234
25	162	163	159	166	225	230	220	242	238	256	253	252
50	188	191	184	189	247	251	246	265	260	274	275	275
75	214	218	210	213	268	271	270	288	281	294	301	294
90	234	241	234	234	286	290	292	310	297	309	324	314
95	247	256	248	247	298	301	305	324	306	316	338	324

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992,* 1994.

Table 14-4 Average writing proficiency, by grade and parents' highest education level: 1984, 1988,1990, and 1992

		Grade 4		Grade 8		Grade 11	
Parents' highest education level	Year	Percent of students	Average proficiency	Percent of students	Average proficiency	Percent of students	Average proficiency
Less than high school graduate	1984	[1]7	179	[1]10	258	11	274
	1988	5	194	8	254	8	276
	1990	6	186	8	246	8	268
	1992	[2]4	191	[2]7	258	8	271
Graduated high school	1984	[1]20	192	[1]35	[1]261	[1]35	284
	1988	18	199	31	[1]258	[1]30	285
	1990	18	197	[1]33	[1,2]252	30	278
	1992	[2]16	202	[2]29	[2]268	[2]27	278
Some education after high school	1984	5	208	[1]10	271	[1]15	298
	1988	5	211	11	275	18	296
	1990	5	214	12	[1]267	[2]18	292
	1992	6	201	[2]12	280	[2]20	292
Graduated college	1984	[1]33	218	[1]36	[1]278	[1]36	300
	1988	[2]41	212	[2]41	[1,2]270	41	299
	1990	[2]40	[2]209	[1]38	[1,2]265	40	298
	1992	[2]42	214	[2]44	[2]284	[2]43	296

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1984.

NOTE: "Percent of students" represents the percentage of all students from each subgroup. Not shown are about one-third of students at age 9 and smaller percentages at ages 13 and 17 who did not know their parents' highest education level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 14-5 Percentage of students making various types of grammatical errors, by sex, type of error, and grade: 1984 and 1992

		Total		Male		Female	
Type of errors	Grade	1984	1992	1984	1992	1984	1992
Run-on sentences	4	15	13	14	13	17	14
	8	7	8	8	9	6	7
	11	5	5	5	5	4	5
Sentence fragments	4	3	4	3	5	3	4
	8	3	4	4	5	3	4
	11	3	4	4	5	2	4
Awkward sentences	4	25	32	26	33	25	32
	8	32	32	34	33	30	30
	11	31	26	35	28	27	25
Misspelled words	4	8	9	9	10	7	8
	8	4	4	4	5	3	3
	11	2	2	3	3	2	2
Word choice errors	4	1	1	1	1	1	1
	8	1	1	1	1	1	1
	11	1	1	1	1	1	1
Capitalization errors	4	1	1	1	1	1	1
	8	0	1	0	2	*0	1
	11	*0	1	*0	1	0	0

* Statistically significant difference from 1992.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 14-6 Average proficiency scores, by age and grade: 1984, 1988, 1990, and 1992

Year	Below modal age[1]		At modal age[1]		Above modal age[1]	
	Percent	Proficiency	Percent	Proficiency	Percent	Proficiency
			Grade 4			
1984	1	204	[2]63	212	[2]36	190
1988	[2]1	[2]225	[2]61	210	[2]38	199
1990	0	[2]226	59	205	[3]40	196
1992	0	166	[3]56	212	[3]44	201
			Grade 8			
1984	1	[2]242	[2]64	[2]272	[2]35	258
1988	1	259	[3]59	[2]271	[3]40	[2]254
1990	1	[3]304	[3]59	[2,3]262	[3]40	[2,3]248
1992	1	[3]289	[3]58	[3]282	[3]41	263
			Grade 11			
1984	13	294	67	296	[2]20	267
1988	11	299	[2]68	297	[2]21	270
1990	11	295	[3]64	292	[3]25	270
1992	10	295	64	293	[3]26	269

[1] Modal age is the most common age of students in a particular grade level. For example, the modal age in fourth grade is 9 years old. Ten-year-olds in fourth grade are above modal age, and 8-year-olds in fourth grade are below modal age.

[2] Statistically significant difference from 1992.

[3] Statistically significant difference from 1984.

NOTE: The modal ages are age 9 at grade 4, age 13 at grade 8, and age 17 at grade 11. The modal age is relatively higher for 11th-graders because of differences in the time of year the test is given to the different grade levels, causing more students to be below the modal age at 11th-grade than at any other grade. For a more complete explanation, see the supplemental note to *Indicator 13*.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 15-1 Explanations of levels of mathematics proficiency

Level 350: Multi-step problem solving and algebra

Students at this level can apply a range of reasoning skills to solve multi-step problems. They can solve routine problems involving fractions and percents, recognize properties of basic geometric figures, and work with exponents and square roots. They can solve a variety of two-step problems using variables, identify equivalent algebraic expressions, and solve linear equations and inequalities. They are developing an understanding of functions and coordinate systems.

Level 300: Moderately complex procedures and reasoning

Students at this level are developing an understanding of number systems. They can compute with decimals, simple fractions, and commonly encountered percents. They can identify geometric figures, measure lengths and angles, and calculate areas of rectangles. These students are also able to interpret simple inequalities, evaluate formulas, and solve simple linear equations. They can find averages, make decisions on information drawn from graphs, and use logical reasoning to solve problems. They are developing the skills to operate with signed numbers, exponents, and square roots.

Level 250: Numerical operations and beginning problem solving

Students at this level have an initial understanding of the four basic operations. They are able to apply whole number addition and subtraction skills to one-step word problems and money situations. In multiplication, they can find the product of a two-digit and a one-digit number. They can also compare information from graphs and charts, and are developing an ability to analyze simple logical relations.

Level 200: Beginning skills and understandings

Students at this level have considerable understanding of two-digit numbers. They can add two-digit numbers, but are still developing an ability to regroup in subtraction. They know some basic multiplication and division facts, recognize relations among coins, can read information from charts and graphs, and use simple measurement instruments. They are developing some reasoning skills.

Level 150: Simple arithmetic facts

Students at this level know some basic addition and subtraction facts, and most can add two-digit numbers without regrouping. They recognize simple situations in which addition and subtraction apply. They also are developing rudimentary classification skills.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 15-2 Percentage of students scoring at or above five levels of mathematics proficiency: 1978, 1982, 1986, 1990, and 1992

		Year				
Proficiency levels	Age	1978	1982	1986	1990	1992
Level 350:	9	0	0	0	0	0
Multi-step problem	13	1	0	[2]0	[2]0	0
solving and algebra	17	7	[2]6	6	7	7
Level 300:	9	1	1	1	1	1
Moderately complex	13	18	17	16	17	19
procedures and reasoning	17	[1]52	[1]48	[1]52	[2]56	[2]59
Level 250:	9	[1]20	[1]19	[1]21	[2]28	[2]28
Numerical operations and	13	[1]65	[1,2]71	[2]73	[2]75	[2]78
beginning problem solving	17	[1]92	[1]93	[2]96	[2]96	[2]97
Level 200:	9	[1]70	[1]71	[1]74	[2]82	[2]81
Beginning skills and	13	[1]95	[2]98	[2]99	[2]98	[2]99
understandings	17	100	100	100	100	100
Level 150:	9	[1]97	[1]97	[1,2]98	[2]99	[2]99
Simple arithmetic	13	100	100	100	100	100
facts	17	100	100	100	100	100

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1978.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 15-3 Percentile distribution of mathematics proficiency scores, by age and race/ethnicity: 1978, 1982, 1986, 1990, and 1992

	Age 9					Age 13					Age 17				
Percentile	1978	1982	1986	1990	1992	1978	1982	1986	1990	1992	1978	1982	1986	1990	1992
All students															
5	157	159	163	173	172	198	212	218	218	221	241	245	252	253	256
10	171	173	177	186	185	213	225	230	230	233	254	256	263	264	267
25	195	196	199	208	208	238	246	248	250	253	276	276	281	283	286
50	220	220	223	231	231	265	270	269	271	274	301	299	301	305	308
75	244	243	246	252	253	291	292	290	292	294	325	322	323	327	328
90	264	263	264	271	271	313	311	309	310	312	345	341	343	345	345
95	276	274	276	282	282	327	322	321	320	323	356	351	354	356	355
White															
5	166	168	171	182	182	212	223	226	228	231	252	253	261	260	264
10	179	181	184	194	194	226	234	236	239	242	263	264	270	270	274
25	201	202	205	215	215	248	254	254	257	260	284	282	287	289	293
50	225	225	228	236	236	272	275	273	277	279	307	304	307	310	313
75	248	247	250	256	256	296	296	293	296	298	329	325	328	330	332
90	267	265	267	274	274	317	314	312	313	315	347	343	346	347	348
95	278	276	278	285	284	330	325	323	323	325	358	353	356	357	357
Black															
5	134	137	146	156	155	170	189	202	202	200	217	225	237	245	238
10	147	150	158	167	166	184	200	213	212	212	228	234	244	254	249
25	169	172	180	186	186	206	219	231	230	231	246	251	260	269	267
50	193	197	203	208	209	229	241	249	249	251	268	271	279	287	287
75	216	218	224	231	230	254	261	267	268	271	290	291	296	307	304
90	236	237	241	249	249	276	280	284	285	286	310	311	312	326	321
95	248	248	251	259	259	288	291	296	296	297	321	321	325	338	331
Hispanic															
5	144	148	155	162	159	180	202	206	206	212	224	232	236	229	248
10	156	161	164	173	169	192	214	216	216	224	234	241	248	242	258
25	179	181	185	193	190	214	231	236	234	241	253	255	265	264	273
50	204	205	206	216	212	237	252	254	255	259	275	275	283	282	292
75	227	226	226	235	234	262	274	274	275	279	298	297	301	304	311
90	250	246	245	252	253	284	293	292	292	295	320	315	319	325	328
95	260	257	254	262	263	296	304	301	303	304	332	327	329	336	336

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992,* 1994.

Table 15-4 Average mathematics proficiency, by age and parents' highest education level: 1978, 1982, 1986, 1990, and 1992

Parents' highest education level	Year	Age 9		Age 13		Age 17	
		Percent of students	Average proficiency	Percent of students	Average proficiency	Percent of students	Average proficiency
Less than high school graduate	1978	[1]8	[1]200	[1]12	[1]245	[1]13	280
	1982	[1]8	[1]199	[1]11	[1,2]251	[1]14	279
	1986	[2]4	[1]201	[2]8	[2]252	[2]8	279
	1990	[2]5	[2]210	[2]8	[2]253	[2]8	285
	1992	[2]4	[2]217	[2]6	[2]256	[2]8	286
Graduated from high school	1978	[1]23	219	[1]33	263	[1]33	294
	1982	[1]25	218	[1]34	263	[1]33	293
	1986	[1,2]16	218	[1]31	263	[1,2]28	293
	1990	[1,2]16	[2]226	[1,2]27	263	[1,2]26	294
	1992	[2]14	222	[2]23	263	[2]21	298
Some education after high school	1978	9	[1]230	[1]14	[1]273	[1]16	305
	1982	[1]9	[1]225	[1]14	275	[1]18	[1]304
	1986	[2]7	[1]229	[1]16	[1]274	[2]24	305
	1990	7	236	[2]17	[2]277	[2]24	308
	1992	8	[2]237	[2]18	[2]278	[2]25	308
Graduated from college	1978	[1]24	[1]231	[1]26	284	[1]32	317
	1982	[1,2]30	[1]229	[1,2]32	282	[1]32	[2]312
	1986	[2]38	[1]231	[1,2]38	280	[1,2]37	314
	1990	[2]40	[2]238	[2]41	280	[2]39	316
	1992	[2]42	[2]236	[2]44	283	[2]43	316

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1978.

NOTE: Percent of students represents the percentage of all students from each subgroup. Not shown are about one-third of students at age 9 and smaller percentages at ages 13 and 17 who did not know their parents' highest education level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 15-5 Average proficiency scores, by age and grade: 1978, 1982, 1986, 1990, and 1992

Year	Below modal grade[1]		At modal grade[1]		Above modal grade[1]	
	Percent	Proficiency	Percent	Proficiency	Percent	Proficiency
			Age 9			
1978	[2]26	[2]191	[2]72	[2]228	[2]1	241
1982	[2]30	[2]193	[2]69	[2]230	1	258
1986	[3]34	[2,3]198	[3]66	[2,3]234	[3,4]0	249
1990	[3]35	[3]207	[3]65	[3]242	[4]0	239
1992	[3]38	[3]208	[3]62	[3]242	[3,4]0	260
			Age 13			
1978	[2]27	[2]240	[2]70	[2]274	1	298
1982	[2]28	[2,3]247	[2]70	[2]277	1	304
1986	33	[2,3]251	67	[2,3]278	1	[2]297
1990	[3]36	[2,3]253	[3]63	[3]280	1	[2]278
1992	[3]37	[3]258	[3]62	[3]282	[4]0	328
			Age 17			
1978	[2]15	[2]273	[2]75	[2]305	[2]10	[2]309
1982	[2]16	[2]274	[2]75	[2]302	[2]10	[2]306
1986	[2]17	[2]277	[2]75	[2]307	8	309
1990	[3]22	[3]282	[3]70	[3]311	[2]8	311
1992	[3]24	[3]284	[3]70	[3]313	[3]6	[3]318

[1] Modal grade is the most common grade level for students of a particular age. For example, the modal grade at age 9 is fourth grade. Nine-year-olds in fifth grade are above modal grade, and 9-year-olds in third grade are below modal grade for their age.

[2] Statistically significant difference from 1992.

[3] Statistically significant difference from 1973.

[4] Less than 0.5 percent.

NOTE: The modal grades are grade 4 at age 9, grade 8 at age 13, and grade 11 at age 17. The modal grade is lower for 17-year-olds because of differences in age definition and in the time of year the assessment is given, causing more students to be above the modal grade at age 17 than at any other age. For a more complete explanation, see the supplemental note to *Indicator 13*.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 16-1 Explanations of levels of science proficiency

Level 350: Integrates specialized scientific information

Students at this level can infer relationships and draw conclusions using detailed scientific knowledge from the physical sciences, particularly chemistry. They also can apply basic principles of genetics and interpret the societal implications of research in this field.

Level 300: Analyzes scientific procedures and data

Students at this level can evaluate the appropriateness of the design of an experiment. They have more detailed scientific knowledge, and the skill to apply their knowledge in interpreting information from text and graphs. These students also exhibit a growing understanding of principles from the physical sciences.

Level 250: Applies general scientific information

Students at this level can interpret data from simple tables and make inferences about the outcomes of experimental procedures. They exhibit knowledge and understanding of the life sciences, including a familiarity with some aspects of animal behavior and of ecological relationships. These students also demonstrate some knowledge of basic information from the physical sciences.

Level 200: Understands simple scientific principles

Students at this level are developing some understanding of simple scientific principles, particularly in the life sciences. For example, they exhibit some rudimentary knowledge of the structure and function of plants and animals.

Level 150: Knows everyday science facts

Students at this level know some general scientific facts of the type that could be learned from everyday experiences. They can read simple graphs, match the distinguishing characteristics of animals, and predict the operation of familiar apparatus that work according to mechanical principles.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Education Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 16-2 Percentage of students scoring at or above five levels of science proficiency: 1977, 1982, 1986, 1990, and 1992

Proficiency level	Age	Year				
		1977	1982	1986	1990	1992
Level 350:	9	0	0	0	0	0
Integrates specialized	13	[1]1	0	[2]0	0	[2]0
scientific information	17	8	[1]7	8	9	10
Level 300:	9	3	2	3	3	3
Analyzes scientific	13	11	10	9	11	12
procedures and data	17	[1]42	[1,2]37	[1]41	43	[2]47
Level 250:	9	[1]26	[1]24	[1]28	[2]31	[2]33
Applies general	13	[1]49	[1]51	[1]52	[1,2]56	[2]61
scientific information	17	82	[1,2]77	81	81	83
Level 200:	9	[1]68	[1]71	[1,2]72	[2]76	[2]78
Understands simple	13	[1]86	[1,2]90	[2]92	[2]92	[2]93
scientific principles	17	97	[1,2]96	97	97	98
Level 150:	9	[1]94	[1]95	[1,2]96	[2]97	[2]97
Knows everyday	13	[1]98	[2]100	[2]100	[2]100	[2]100
science facts	17	100	100	100	100	100

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1977.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 16-3 Percentile distribution of science proficiency scores, by age, and race/ethnicity: 1977, 1982, 1986, 1990, and 1992

	Age 9					Age 13					Age 17				
Percentile	1977	1982	1986	1990	1992	1977	1982	1986	1990	1992	1977	1982	1986	1990	1992
All students															
5	144	151	155	160	163	174	185	189	191	193	213	203	212	210	218
10	161	167	170	176	178	191	200	203	206	209	231	222	230	229	234
25	190	194	196	202	204	218	224	227	230	235	261	252	260	260	264
50	222	221	225	230	232	249	251	252	256	260	291	285	290	292	296
75	251	249	253	257	258	278	277	276	281	284	320	315	319	323	327
90	276	272	277	279	281	302	299	298	302	303	346	342	344	348	350
95	291	286	291	292	294	317	313	310	315	315	362	357	360	363	364
White															
5	163	167	166	177	178	191	198	204	209	213	231	223	228	233	234
10	178	182	181	190	192	205	211	216	220	226	246	239	245	249	251
25	202	204	206	213	214	229	233	237	241	246	270	266	271	273	277
50	230	229	233	238	240	256	258	259	264	268	298	294	299	301	306
75	257	255	259	262	264	283	282	282	287	289	325	321	325	329	333
90	281	278	282	284	285	307	303	302	307	307	350	346	349	352	355
95	295	291	295	296	298	321	316	314	319	318	365	361	364	367	368
Black															
5	107	124	133	131	138	144	160	168	170	162	172	166	189	182	192
10	123	137	147	145	152	158	173	180	182	177	187	181	202	197	207
25	147	159	170	170	174	181	194	198	202	199	212	206	225	220	230
50	174	188	196	196	201	207	217	221	226	224	240	235	252	252	255
75	203	214	223	224	226	235	241	244	249	251	268	263	280	283	282
90	229	236	246	247	284	260	262	264	269	272	293	289	306	314	308
95	244	246	260	260	260	275	275	277	283	286	310	305	323	329	325
Hispanic															
5	125	127	134	146	143	147	166	171	174	180	194	178	194	189	197
10	140	142	148	159	157	161	179	181	185	193	208	194	209	204	215
25	164	162	173	181	179	186	201	202	206	215	234	219	232	231	242
50	191	191	200	206	205	213	226	226	231	238	262	248	259	260	273
75	219	216	226	233	230	240	249	250	256	261	290	278	286	293	298
90	246	236	252	253	254	266	271	270	280	282	317	302	310	317	323
95	261	246	265	267	265	282	285	283	294	292	331	321	324	330	339

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 16-4 Average science proficiency, by age and parents' highest education level: 1977, 1982, 1986, 1990, and 1992

Parents' highest education level	Year	Age 9		Age 13		Age 17	
		Percent of students	Average proficiency	Percent of students	Average proficiency	Percent of students	Average proficiency
Less than high school graduate	1977	[1]9	[1]198	[1]13	[1]224	[1]15	265
	1982	6	[1]198	[1,2]10	225	[1]13	258
	1986	[2]4	[1]204	[2]8	229	[2]8	258
	1990	[2]5	[2]210	[2]8	[2]233	[2]8	261
	1992	[2]4	[2]217	[2]6	[2]234	[2]8	262
Graduated from high school	1977	[1]27	223	[1]33	245	[1]33	284
	1982	[2]15	218	[2]26	243	[1,2]29	[2]275
	1986	[1,2]16	220	[1]31	245	[1,2]28	[2]277
	1990	[1,2]16	226	[1,2]27	247	[1,2]26	[2]276
	1992	[2]14	222	[2]23	246	[2]21	280
Some education after high school	1977	7	237	[1]15	[1]260	[1]17	296
	1982	8	229	17	[1]259	[1,2]22	[2]290
	1986	7	236	[1]16	[1]258	[2]24	295
	1990	7	238	17	263	[2]24	296
	1992	8	237	[2]18	[2]266	[2]25	296
Graduated from college	1977	[1]23	[1]232	[1]27	266	[1]30	309
	1982	[2]42	[1]230	[1,2]37	[1]264	[1]32	[1,2]300
	1986	[2]38	235	[1,2]38	264	[1,2]37	304
	1990	[2]40	236	[2]41	268	[2]39	306
	1992	[2]42	[2]239	[2]44	269	[2]43	308

[1] Statistically significant difference from 1992.

[2] Statistically significant difference from 1977.

NOTE: Percent of students represents the percentage of all students from each subgroup. Not shown are approximately one-third of students at age 9 and smaller percentages at ages 13 and 17 who did not know their parents' highest education level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of American Students in Science, 1969 to 1992; Mathematics 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 16-5 Average proficiency scores, by age and grade: 1977, 1982, 1986, 1990, and 1992

Year	Below modal grade[1]		At modal grade[1]		Above modal grade[1]	
	Percent	Proficiency	Percent	Proficiency	Percent	Proficiency
		Age 9				
1977	[2]24	[2]197	[2]75	[2]227	[2]1	244
1982	[2,3]30	[2]198	[2]70	[2]231	[2]0.5	[3]66
1986	[3]34	[2,3]205	[2]66	[2,3]234	[3]0.3	235
1990	[3]35	[3]211	[3]65	[3]238	[3]0.3	235
1992	[3]38	[3]215	[3]62	[3]240	[3]0.3	248
		Age 13				
1977	[2]27	[2]223	[2]72	[2]256	1	285
1982	[2]28	[2]229	[2]72	[2]258	0.2	287
1986	33	[2,3]234	67	[2]260	0.5	[2]266
1990	[3]36	[3]240	[3]63	[3]264	0.5	262
1992	[3]37	[3]244	[3]62	[3]266	0.2	313
		Age 17				
1977	[2]14	[2]253	[2]75	[2]295	[2]11	301
1982	[2]16	[2]251	[2]75	[2,3]289	[2]9	[3]292
1986	[2]17	259	[2]75	[2]294	[3]8	299
1990	[3]22	[3]260	[3]70	[2,3]299	[2,3]8	298
1992	[3]24	[3]263	[3]70	[3]304	[3]6	305

[1] Modal grade is the most common grade level for students of a particular age. For example, the modal grade at age 9 is fourth grade. Nine-year-olds in fifth grade are above modal grade, and 9-year-olds in third grade are below modal grade for their age.

[2] Statistically significant difference from 1992.

[3] Statistically significant difference from 1977.

NOTE: The modal grades are: grade 4 at age 9, grade 8 at age 13, and grade 11 at age 17. The modal grade is lower for 17-year-olds because of differences in age definition and in the time of year the test is given, causing more students to be above the modal grade at age 17 than at any other age. For a more complete explanation, see the supplemental note to Indicator 13.

SOURCE: Department of Education, National Center for Education Statistics, A National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992*, 1994.

Table 17-1 Average reading literacy scale scores, by age, sex, and country: School year 1991–92

Country	Age 9			Age 14		
	Total	Male	Female	Total	Male	Female
Belgium[1]	507	503	512	481	480	486
Botswana	—	—	—	330	327	333
British Columbia, Canada[2]	500	495	506	522	513	534
Cyprus	481	479	484	497	493	501
Denmark	475	463	489	525	523	527
East Germany[3]	499	490	509	526	523	530
Finland[4]	569	564	575	560	554	568
France[5]	531	530	533	549	553	549
Greece[6]	504	499	510	509	509	510
Hong Kong[7]	517	512	524	535	533	538
Hungary[8]	499	495	504	536	528	542
Iceland[9]	518	508	528	536	530	543
Ireland[10]	509	502	517	511	502	525
Italy[11]	529	525	537	515	511	520
Netherlands	485	483	488	514	511	520
New Zealand	528	519	539	545	544	549
Norway[12]	524	517	533	516	516	520
Philippines[13]	—	—	—	430	427	432
Portugal	478	474	483	523	528	520
Singapore	515	510	521	534	534	534
Slovenia	498	491	506	532	529	534
Spain[14]	504	500	508	490	488	492
Sweden	539	533	546	546	540	555
Switzerland	511	507	517	536	535	538
Thailand[15]	—	—	—	477	464	488
Trinidad/Tobago	451	443	460	479	466	492
United States[16]	547	543	552	535	530	543
Venezuela[17]	383	379	392	417	419	421
West Germany[18]	503	501	508	522	522	526
Zimbabwe	—	—	—	372	380	363

— Country did not participate at this age level.

[1] Schools in French-speaking Belgium only; students instructed in Flemish or German were excluded.

[2] Students in Government Native Indian schools were excluded.

[3] Students in special schools for disabled students and institutions for specially talented students were excluded.

[4] Swedish-speaking, special education, and laboratory schools were excluded.

[5] Private schools were excluded (16 percent of 9-year-olds and 21 percent of 14-year-olds).

[6] For 14-year-olds, 1.4 percent in evening schools were excluded.

[7] International schools, ESF Foundation schools, schools not participating in Secondary School Places Allocation System (SSPA), and schools with class size of less than 20 were excluded.

[8] Very small schools in remote areas and ungraded schools were excluded.

[9] Schools where there were fewer than 5 students were excluded.

[10] Private schools and schools with fewer than 5 students were excluded.

[11] Non-government schools were excluded.

[12] Schools for Lapps were excluded.

[13] Schools in earthquake and insurgency areas (about 39 percent of the population) were excluded.

[14] Students from schools with fewer than 10 students in the defined grade and from schools where medium of instruction was not Castillian Spanish were excluded.

[15] Laboratory schools and schools controlled by the Department of Fine Arts and Culture were excluded.

[16] Students in eligible schools not capable of taking the test (4.9 percent of each age group) were excluded.

[17] Students attending private rural schools were excluded.

[18] Students in special schools for disabled students and non-graded private schools were excluded.

SOURCE: International Association for the Evaluation of Educational Achievement, Study of Reading Literacy, *How in the World Do Students Read?*, 1992.

Table 17-2 Average scores across narrative, expository, and documents domains for 9-year-olds on reading literacy assessment, by country: School year 1991–92

	Average score			Percentile score, narrative domain					
Country	Narrative	Expository	Documents	1st	5th	10th	90th	95th	99th
Belgium[1]	510	505	506	293	361	385	612	643	695
British Columbia, Canada[2]	502	499	500	186	345	389	619	644	697
Cyprus	492	475	476	283	351	373	601	626	686
Denmark	463	467	496	186	186	299	592	628	682
East Germany[3]	482	493	522	219	324	361	590	626	686
Finland[4]	568	569	569	353	420	466	649	681	708
France[5]	532	533	527	335	381	411	640	672	701
Greece	514	511	488	303	367	400	622	647	699
Hong Kong[6]	494	503	554	273	350	383	601	618	677
Hungary[7]	496	493	509	299	362	390	588	617	661
Iceland[8]	518	517	519	297	361	390	627	647	700
Indonesia[9]	402	411	369	205	280	316	489	528	566
Ireland[10]	518	514	495	301	363	390	631	649	701
Italy[11]	533	538	517	303	379	411	627	650	701
Netherlands	494	480	481	311	359	382	591	625	688
New Zealand	534	531	521	299	365	403	647	679	707
Norway[12]	525	528	519	186	342	390	629	654	702
Portugal	483	480	471	300	356	386	587	617	670
Singapore	521	519	504	306	364	395	623	653	701
Slovenia	502	489	503	296	355	389	648	650	700
Spain[13]	497	505	509	291	357	389	597	641	687
Sweden	536	542	539	239	364	406	644	673	706
Switzerland	506	507	522	237	362	391	602	642	696
Trinidad/Tobago	455	458	440	232	312	343	567	605	676
United States[14]	553	538	550	330	389	420	655	685	708
Venezuela[15]	378	396	374	186	186	220	474	500	554
West Germany[16]	491	497	520	226	340	372	594	629	690

[1] Schools in French-speaking Belgium only; students instructed in Flemish or German were excluded.

[2] Students in Government Native Indian schools were excluded.

[3] Students in special schools for disabled students and institutions for specially talented students were excluded.

[4] Swedish-speaking, special education, and laboratory schools were excluded.

[5] Private schools were excluded (16 percent).

[6] International schools, ESF Foundation schools, schools not participating in Secondary School Places Allocation System (SSPA), and schools with class size of less than 20 were excluded.

[7] Very small schools in remote areas and ungraded schools were excluded.

[8] Schools where there were fewer than 5 students were excluded.

[9] Schools outside of Java, Riau (Sumatra), and East Nusa Tenggara were excluded (30 percent of target population).

[10] Private schools and schools with fewer than 5 students were excluded.

[11] Non-government schools were excluded.

[12] Schools for Lapps were excluded.

[13] Students from schools with fewer than 10 students in the defined grade and from schools where medium of instruction was not Castillian Spanish were excluded.

[14] Students in eligible schools not capable of taking the test (5 percent) were excluded.

[15] Students attending private rural schools were excluded.

[16] Students in special schools for disabled students and non-graded private schools were excluded.

SOURCE: International Association for the Evaluation of Educational Achievement, Study of Reading Literacy, *How in the World Do Students Read?*, 1992.

Table 17-3 Average scores across narrative, expository, and documents domains for 14-year-olds on reading literacy assessment, by country: School year 1991–92

Country	Average score			Percentile score, expository domain					
	Narrative	Expository	Documents	1st	5th	10th	90th	95th	99th
Belgium[1]	484	477	483	242	319	360	572	605	685
Botswana	340	339	312	121	227	247	411	417	452
British Columbia, Canada[2]	526	516	522	290	362	394	635	676	750
Cyprus	516	492	482	282	340	378	601	638	705
Denmark	517	524	532	295	380	411	636	673	741
East Germany[3]	512	523	543	315	381	408	633	648	708
Finland[4]	559	541	580	354	421	453	628	641	699
France[5]	556	546	544	362	414	447	639	681	748
Greece[6]	526	508	493	322	376	401	602	640	711
Hong Kong[7]	509	540	557	343	407	434	621	642	718
Hungary[8]	530	536	542	326	389	420	640	680	748
Iceland[9]	550	548	509	316	385	413	660	686	748
Ireland[10]	510	505	518	282	356	384	630	643	725
Italy[11]	520	524	501	324	386	413	616	643	727
Netherlands	506	503	533	291	365	395	593	624	694
New Zealand	547	535	552	290	363	410	660	692	757
Norway[12]	515	520	512	313	386	413	609	642	713
Philippines[13]	421	439	430	272	321	342	530	571	662
Portugal	523	523	523	341	411	429	606	636	698
Singapore	530	539	533	367	410	434	629	666	735
Slovenia	534	525	537	360	410	441	607	643	700
Spain[14]	500	495	475	308	364	391	581	613	688
Sweden	556	533	550	324	384	420	637	677	749
Switzerland	534	525	549	307	381	412	632	654	722
Thailand[15]	468	486	478	239	324	363	573	599	662
Trinidad/Tobago	482	485	472	255	330	358	600	636	729
United States[16]	539	539	528	324	381	410	673	705	764
Venezuela[17]	407	433	412	220	290	330	526	556	629
West Germany[18]	514	521	532	323	381	411	622	667	736
Zimbabwe	367	374	373	139	272	291	453	483	551

[1] Schools in French-speaking Belgium only; students instructed in Flemish or German were excluded.

[2] Students in Government Native Indian schools were excluded.

[3] Students in special schools for disabled students and institutions for specially talented students were excluded.

[4] Swedish-speaking, special education, and laboratory schools were excluded.

[5] Private schools were excluded (21 percent).

[6] Students in evening schools were excluded (1 percent).

[7] International schools, ESF Foundation schools, schools not participating in Secondary School Places Allocation System (SSPA), and schools with class size of less than 20 were excluded.

[8] Very small schools in remote areas and ungraded schools were excluded.

[9] Schools where there were fewer than 5 students were excluded.

[10] Private schools and schools with fewer than 5 students were excluded.

[11] Non-government schools were excluded.

[12] Schools for Lapps were excluded.

[13] Schools in earthquake and insurgency areas (about 39 percent of the population) were excluded.

[14] Students from schools with fewer than 10 students in the defined grade and from schools where medium of instruction was not Castillian Spanish were excluded.

[15] Laboratory schools and schools controlled by the Department of Fine Arts and Culture were excluded.

[16] Students in eligible schools not capable of taking the test (5 percent) were excluded.

[17] Students attending private rural schools were excluded.

[18] Students in special schools for disabled students and non-graded private schools were excluded.

SOURCE: International Association for the Evaluation of Educational Achievement, Study of Reading Literacy, *How in the World Do Students Read?*, 1992.

Table 17-4 Average reading achievement scores for students speaking a different language at home and for students speaking the school language, by country: School year 1991–92

Country	Age 9				Age 14			
	Non-school language		School language		Non-school language		School language	
	Percentage of students	Average score	Percentage of students	Average score	Percentage of students	Average score	Percentage of students	Average score
Belgium[1]	11	481	89	512	9	435	91	491
Botswana	—	—	—	—	61	328	39	334
British Columbia, Canada[2]	11	488	89	502	8	506	92	524
Cyprus	4	476	96	482	0	437	100	497
Denmark	5	441	95	480	3	470	98	527
East Germany[3]	2	472	98	500	1	521	99	527
Finland[4]	2	532	99	569	1	533	99	562
France[5]	9	491	91	536	4	516	96	552
Greece[6]	6	472	94	508	3	487	97	510
Hong Kong[7]	13	488	87	522	4	495	96	537
Hungary[8]	3	468	97	501	1	493	99	536
Iceland[9]	4	487	97	519	0	508	100	536
Indonesia[10]	73	394	28	403	—	—	—	—
Ireland[11]	3	495	97	510	1	482	99	513
Italy[12]	27	513	73	537	26	488	74	525
Netherlands	13	459	88	489	9	489	91	518
New Zealand	8	465	92	535	6	470	94	551
Norway[13]	4	471	96	527	2	473	98	519
Philippines[14]	—	—	—	—	90	428	10	449
Portugal	3	469	97	479	2	504	98	524
Singapore	73	505	28	543	74	523	26	566
Slovenia	12	469	89	502	6	506	94	534
Spain[15]	13	499	87	505	11	481	89	491
Sweden	9	486	91	544	5	501	95	549
Switzerland	21	476	79	521	15	497	85	544
Thailand[16]	—	—	—	—	39	476	61	479
Trinidad/Tobago	15	439	85	456	16	456	84	485
United States[17]	4	520	97	549	4	478	96	539
West Germany[18]	11	461	90	509	8	455	92	530
Venezuela[19]	18	383	82	388	5	394	95	421
Zimbabwe	—	—	—	—	83	371	17	385

— Country did not participate at this age level.

[1] Schools in French-speaking Belgium only. Students instructed in Flemish or German were excluded.

[2] Students in Government Native Indian schools were excluded.

[3] Students in special schools for disabled students and institutions for specially talented students were excluded.

[4] Swedish-speaking, special education, and laboratory schools were excluded.

[5] Private schools were excluded (16 percent of 9-year-olds and 21 percent of 14-year-olds).

[6] For 14-year-olds, 1.4 percent in evening schools were excluded.

[7] International schools, ESF Foundation schools, schools not participating in Secondary School Places Allocation System (SSPA), and schools with class size of less than 20 were excluded.

[8] Very small schools in remote areas and ungraded schools were excluded.

[9] Schools where there were fewer than 5 students were excluded.

[10] Schools outside of Java, Riau (Sumatra), and East Nusa Tenggara were excluded (30 percent of target population).

[11] Private schools and schools with fewer than 5 students were excluded.

[12] Non-government schools were excluded.

[13] Schools for Lapps were excluded.

[14] Schools in earthquake and insurgency areas (about 39 percent of the population) were excluded.

[15] Students from schools with fewer than 10 students in the defined grade and from schools where medium of instruction was not Castillian Spanish were excluded.

[16] Laboratory schools and schools controlled by the Department of Fine Arts and Culture were excluded.

[17] Students in eligible schools not capable of taking the test (5 percent of each age group) were excluded.

[18] Students attending private rural schools were excluded.

[19] Students in special schools for disabled students and non-graded private schools were excluded.

SOURCE: International Association for the Evaluation of Educational Achievement, Study of Reading Literacy, *How in the World Do Students Read?*, 1992.

Table 18-1 Distribution of proficiency scores of 9-year-olds on mathematics assessment, by country: 1991

	Average proficiency score			Percentile scores						
Country	Total	Male	Female	1st	5th	10th	Median	90th	95th	99th
Comprehensive populations										
Canada[1]	430	430	431	296	337	363	435	490	506	537
Hungary	452	452	452	312	357	379	455	520	536	573
Ireland	426	425	427	273	317	345	433	493	514	545
Israel[2]	442	447	438	310	347	373	445	504	523	555
South Korea	473	480	465	334	383	407	475	534	550	586
Slovenia	413	413	414	303	336	355	417	467	482	508
Soviet Union[3]	447	448	446	310	349	374	450	514	532	579
Spain[4]	432	432	432	287	330	353	437	499	518	551
Taiwan	454	455	453	304	360	384	457	521	539	571
United States[5]	420	422	419	278	305	333	427	492	513	549
Populations with exclusions or low participation										
England[6]	427	427	427	292	322	352	428	501	521	556
Italy, Emilia-Romagna[6]	451	456	446	315	360	386	453	518	536	570
Portugal[7]	418	422	414	284	327	347	422	485	500	530
Scotland[6]	446	446	446	314	356	382	447	511	525	559
Canadian populations										
British Columbia	434	433	434	291	336	365	437	497	512	548
New Brunswick-English	427	429	426	288	326	353	433	489	505	540
Ontario-English	420	417	421	286	321	351	425	482	497	527
Ontario-French	414	415	414	292	333	353	419	470	482	512
Quebec-English	435	437	434	294	334	365	440	499	518	549
Quebec-French	443	444	441	318	356	380	447	497	513	540

[1] Four out of 10 provinces.

[2] Hebrew-speaking schools.

[3] Fourteen out of 15 republics in the former Soviet Union; Russian-speaking schools.

[4] Regions except Cataluña; Spanish-speaking schools.

[5] Combined school and student participation rate is below .80 but at least .70; interpret results with caution because of possible nonresponse bias.

[6] Combined school and student participation rate is below .70; interpret results with extreme caution because of possible nonresponse bias.

[7] Restricted grades.

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Table 18-2 Distribution of proficiency scores of 13-year-olds on mathematics assessment, by country: 1991

Country	Average proficiency scores			Percentile scores						
	Total	Male	Female	1st	5th	10th	Median	90th	95th	99th
Comprehensive populations										
Canada[1]	513	515	512	400	443	462	515	564	580	608
France	519	523	515	404	442	460	521	574	588	616
Hungary	529	528	528	401	447	465	531	588	605	639
Ireland	509	514	505	381	425	449	514	565	580	614
Israel[2]	517	520	514	396	441	462	520	567	578	607
Italy, Emilia-Romagna[3]	517	521	513	402	444	459	522	569	581	610
Jordan	458	461	454	345	371	390	459	520	539	568
South Korea	542	546	537	390	445	470	545	609	629	665
Scotland[3]	511	511	512	400	438	454	513	564	580	604
Slovenia	504	506	501	407	432	445	507	556	570	599
Soviet Union[4]	533	533	532	413	458	477	536	584	596	629
Spain[5]	495	498	492	390	429	446	496	542	556	577
Switzerland[6]	539	544	534	443	475	491	542	586	598	631
Taiwan	545	546	544	368	424	454	550	631	659	694
United States[3]	494	494	494	366	407	430	495	554	574	616
Populations with exclusions or low participation										
Brazil, Fortaleza[7]	432	442	425	319	345	364	429	502	519	544
Brazil, Sao Paulo[8]	444	445	443	331	358	378	441	515	531	554
China[9]	561	565	556	457	491	508	559	613	633	662
England[10]	511	510	511	371	424	448	512	573	590	617
Mozambique[10,11]	427	431	424	346	370	385	429	468	478	503
Portugal[3,7]	483	485	482	369	406	427	487	535	549	577
Canadian populations										
Alberta	516	517	515	407	446	464	517	567	583	615
British Columbia	523	524	521	424	455	472	522	575	593	624
Manitoba-English	502	502	502	381	424	448	505	554	565	601
Manitoba-French	516	519	513	413	455	472	516	560	572	594
New Brunswick-English	501	503	500	381	426	448	503	552	570	598
New Brunswick-French	509	508	510	394	433	453	513	559	571	591
Newfoundland	506	504	509	386	431	454	509	555	571	601
Nova Scotia	509	511	506	395	435	457	510	560	575	613
Ontario-English	504	506	502	396	435	453	504	556	572	600
Ontario-French	494	493	495	384	423	442	497	538	553	582
Quebec-English[3]	523	523	522	408	453	470	522	577	594	630
Quebec-French	528	531	525	435	465	481	529	573	587	609
Saskatchewan-English	513	516	510	407	438	461	515	562	577	608
Saskatchewan-French	525	527	524	447	461	482	525	566	578	601

[1] Nine out of 10 provinces.

[2] Hebrew-speaking schools.

[3] Combined school and student participation rate is below .80 but at least .70; interpret results with caution because of possible nonresponse bias.

[4] Fourteen out of 15 republics in the former Soviet Union; Russian-speaking schools.

[5] Regions except Cataluña; Spanish-speaking schools.

[6] Fifteen out of 26 cantons.

[7] In-school population, restricted grades.

[8] Restricted grades.

[9] Twenty out of 29 provinces and independent cities; in-school population, restricted grades.

[10] Combined school and student participation rate is below .70; interpret results with extreme caution because of possible nonresponse bias.

[11] Cities of Maputo and Beira; in-school population.

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Table 19-1 Distribution of proficiency scores of 9-year-olds on science assessment, by sex, percentile, and country: 1991

Country	Average proficiency score			Percentile scores						
	Total	Male	Female	1st	5th	10th	Median	90th	95th	99th
Comprehensive populations										
Canada[1]	437	439	434	257	316	346	443	517	538	582
Hungary	438	443	434	270	331	360	441	511	534	567
Ireland	401	409	393	221	258	289	408	496	515	561
Israel[2]	431	440	423	247	309	337	430	524	553	595
South Korea	460	474	446	303	357	383	460	541	563	609
Slovenia	403	406	401	262	299	325	405	478	497	528
Soviet Union[3]	434	441	428	284	328	356	433	515	547	588
Spain[4]	430	439	421	250	305	334	435	522	541	567
Taiwan	456	466	445	254	321	359	458	553	576	627
United States[5]	446	451	441	235	292	328	453	543	567	605
Populations with exclusions or low participation										
England[6]	438	441	435	245	300	329	445	529	554	604
Italy, Emilia-Romagna[6]	459	465	454	293	345	371	460	547	569	626
Portugal[7]	394	402	387	233	280	306	395	480	499	549
Scotland[6]	433	434	432	248	314	339	436	515	538	568
Canadian populations										
British Columbia	455	455	455	269	336	368	463	531	551	590
New Brunswick-English	429	429	429	223	273	319	440	516	542	579
Ontario-English	434	437	431	242	296	334	443	521	544	581
Ontario-French	402	402	403	255	294	321	401	480	502	545
Quebec-English	438	443	434	259	312	339	443	530	549	594
Quebec-French	437	439	434	283	329	358	441	512	531	567

[1] Four out of 10 provinces.

[2] Hebrew-speaking schools.

[3] Fourteen out of 15 republics in the former Soviet Union; Russian-speaking schools.

[4] Regions except Cataluña; Spanish-speaking schools.

[5] Combined school and student participation rate is below .80 but at least .70; interpret results with caution because of possible nonresponse bias.

[6] Combined school and student participation rate is below .70; interpret results with extreme caution because of possible nonresponse bias.

[7] Restricted grades.

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Table 19-2 Distribution of proficiency scores of 13-year-olds on science assessment, by country: 1991

	Average proficiency score			Percentile scores						
Country	Total	Male	Female.	1st	5th	10th	Median	90th	95th	99th
Comprehensive populations										
Canada[1]	533	539	527	384	434	460	534	606	628	670
France	532	540	524	370	417	442	534	611	639	677
Hungary	553	563	544	386	436	467	555	639	665	717
Ireland	510	521	499	334	391	418	511	594	616	668
Israel[2]	534	543	527	379	426	449	536	614	635	676
Italy, Emilia-Romagna[3]	537	545	529	384	432	459	538	612	632	672
Jordan	473	475	470	292	342	375	480	557	584	628
South Korea	571	580	559	395	457	490	575	648	670	710
Scotland[3]	530	535	525	363	416	441	532	611	631	674
Slovenia	537	544	530	398	434	461	539	615	638	671
Soviet Union[4]	541	546	535	383	438	465	545	612	629	661
Spain[5]	525	531	519	380	428	453	524	596	617	663
Switzerland[6]	562	573	551	408	467	491	566	637	662	701
Taiwan	563	567	560	339	420	463	572	655	673	715
United States[3]	521	530	513	334	410	436	523	601	627	665
Populations with exclusions or low participation										
Brazil, Fortaleza[7]	426	439	416	279	313	333	425	520	542	589
Brazil, Sao Paulo[8]	454	469	442	305	333	354	454	545	578	629
China[9]	526	535	517	355	411	439	528	608	638	683
England[10]	532	537	528	358	415	443	535	615	639	685
Portugal[3,7]	506	517	497	339	391	418	509	589	614	654
Canadian populations										
Alberta	554	564	544	407	456	483	556	624	643	683
British Columbia	548	552	545	407	453	479	552	613	636	676
Manitoba-English	531	536	525	356	417	445	533	611	634	671
Manitoba-French	522	533	514	359	426	449	524	594	613	652
New Brunswick-English	521	527	515	344	406	441	525	597	616	657
New Brunswick-French	510	511	509	354	399	430	513	585	607	650
Newfoundland	521	530	512	361	413	441	522	601	624	663
Nova Scotia	532	537	527	364	428	453	534	609	631	668
Ontario-English	526	531	520	378	426	453	526	595	622	669
Ontario-French	497	503	491	345	401	422	496	572	590	630
Quebec-English[3]	535	543	528	386	436	463	536	611	637	675
Quebec-French	544	551	536	403	449	475	543	614	638	675
Saskatchewan-English	538	544	531	379	435	464	540	611	635	676
Saskatchewan-French	517	521	513	380	440	460	513	585	608	639

[1] Nine out of 10 provinces.

[2] Hebrew-speaking schools.

[3] Combined school and student participation rate is below .80 but at least .70; interpret results with caution because of possible nonresponse bias.

[4] Fourteen out of 15 republics in the former Soviet Union; Russian-speaking schools.

[5] Regions except Cataluña; Spanish-speaking schools.

[6] Fifteen out of 26 cantons.

[7] In-school population, restricted grades.

[8] Restricted grades.

[9] Twenty out of 29 provinces and independent cities; in-school population, restricted grades.

[10] Combined school and student participation rate is below .70; interpret results with extreme caution because of possible nonresponse bias.

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Table 20-1 Scholastic Aptitude Test (SAT) test-takers as a percentage of high school graduates, percentage of test-takers who are minorities, SAT mean scores, standard deviations, and percent scoring over 600: 1972–94

		SAT test-takers				Verbal			Mathematics		
Year	Number of high school graduates[1]	Number[1]	As a percent of high school graduates[2]	Percent minority	Total mean	Mean	Standard deviation	Percent scoring 600 or higher	Mean	Standard deviation	Percent scoring 600 or higher
	(in thousands)										
1972	3,001	1,023	34.1	—	937	453	111	11	484	115	17
1973	3,036	1,015	33.4	—	926	445	108	10	481	113	16
1974	3,073	985	32.1	—	924	444	110	10	480	116	17
1975	3,133	996	31.8	—	906	434	109	8	472	115	15
1976	3,148	1,000	31.8	15.0	903	431	110	8	472	120	17
1977	3,155	979	31.0	16.1	899	429	110	8	470	119	16
1978	3,127	989	31.6	17.0	897	429	110	8	468	118	15
1979	3,117	992	31.8	17.1	894	427	110	7	467	117	15
1980	3,043	992	32.6	17.9	890	424	110	7	466	117	15
1981	3,020	994	32.9	18.1	890	424	110	7	466	117	14
1982	2,995	989	33.0	18.3	893	426	110	7	467	117	15
1983	2,888	963	33.3	18.9	893	425	109	7	468	119	16
1984	2,767	965	34.9	19.7	897	426	110	7	471	119	17
1985	2,677	977	36.5	20.0	906	431	111	7	475	119	17
1986	2,643	1,001	37.9	—	906	431	110	8	475	121	17
1987	2,694	1,080	40.1	21.8	906	430	111	8	476	122	18
1988	2,773	1,134	40.9	23.0	904	428	109	7	476	120	17
1989	2,727	1,088	39.9	25.3	903	427	111	8	476	121	18
1990	[3]2,588	1,026	[3]39.7	26.6	900	424	111	7	476	123	18
1991	[3]2,503	1,033	[3]41.2	28.0	896	422	111	7	474	123	17
1992	[3]2,471	1,034	[3]41.8	28.5	899	423	112	7	476	123	18
1993[4]	[3]2,512	1,044	[3]41.6	30.0	902	424	113	7	478	125	19
1994[4]	2,513	1,050	41.8	31.0	902	423	113	7	479	124	18

— Not available.

[1] Includes public and private schools.

[2] The ratio of the number of high school graduates taking the SAT at any time while they were in high school to the total number of high school graduates expressed as a percentage.

[3] Data have been revised from previously published figures.

[4] Number of public high school graduates is based on state estimates.

SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors, 1972-1994*. (Copyright © 1994 by College Entrance Examination Board. All rights reserved.) U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 99.

Table 20-2 SAT mean scores of college-bound seniors, by race/ethnicity: 1976–94

	White		Black		Mexican American		Puerto Rican		Other Hispanic		Asian American		American Indian	
Year	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math
1976	451	493	332	354	371	410	364	401	—	—	414	518	388	420
1977	448	489	330	357	370	408	355	397	—	—	405	514	390	421
1978	446	485	332	354	370	402	349	388	—	—	401	510	387	419
1979	444	483	330	358	370	410	345	388	—	—	396	511	386	421
1980	442	482	330	360	372	413	350	394	—	—	396	509	390	426
1981	442	483	332	362	373	415	353	398	—	—	397	513	391	425
1982	444	483	341	366	377	416	360	403	—	—	398	513	388	424
1983	443	484	339	369	375	417	358	403	—	—	395	514	388	425
1984	445	487	342	373	376	420	358	405	—	—	398	519	390	427
1985	449	490	346	376	382	426	368	409	—	—	404	518	392	428
1986	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1987	447	489	351	377	379	424	360	400	387	432	405	521	393	432
1988	445	490	353	384	382	428	355	402	387	433	408	522	393	435
1989	446	491	351	386	381	430	360	406	389	436	409	525	384	428
1990	442	491	352	385	380	429	359	405	383	434	410	528	388	437
1991	441	489	351	385	377	427	361	406	382	431	411	530	393	437
1992	442	491	352	385	372	425	366	406	383	433	413	532	395	442
1993	444	494	353	388	374	428	367	409	384	433	415	535	400	447
1994	443	495	352	388	372	427	367	411	383	435	416	535	396	441

— Not available.

NOTE: The first year for which SAT scores by racial/ethnic group are available is 1976. Data were not collected by racial/ethnic group in 1986. See the supplemental note for information on interpreting the SAT scores.

SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors, 1972-1994*. (Copyright ©1994 by College Entrance Examination Board. All rights reserved.)

Table 20-3 Percentage of college-bound seniors taking the SAT who scored in various ranges on the verbal and mathematics sections of the SAT, by sex: 1994

Verbal				Math		
Total	Male	Female	Score	Total	Male	Female
0	0	0	750–800	1	2	1
1	1	1	700–740	3	5	2
2	2	2	650–690	6	7	4
4	4	4	600–640	8	10	7
7	7	7	550–590	11	12	10
11	11	11	500–540	14	15	14
14	14	14	450–490	15	14	15
17	17	18	400–440	14	12	15
17	16	17	350–390	11	10	13
12	12	13	300–340	9	7	11
8	8	8	250–290	5	4	6
5	5	5	200–240	1	1	2
423	425	421	Mean	479	501	460
113	114	111	Standard deviation	124	127	117

NOTE: 800 is the highest score possible, and 200 is the lowest score possible on each section of the SAT. The term "college-bound seniors" refers to those students from each high school graduating class who participate in the College Board Admission Testing Program, and does not include all first-year college students nor all high school seniors.

SOURCE: College Entrance Examination Board, *College Bound Seniors: 1994 Profile of SAT and Achievement Test Takers*.

Table 20-4 Distribution of college-bound seniors and average verbal and mathematics SAT scores, by selected characteristics: 1988, 1991, and 1994

Characteristic	1988			1991			1994		
	Percent of SAT test-takers	SAT mean score		Percent of SAT test-takers	SAT mean score		Percent of SAT test-takers	SAT mean score	
		Verbal	Math		Verbal	Math		Verbal	Math
All students	**100**	**428**	**476**	**100**	**422**	**474**	**100**	**423**	**479**
Parents' income									
Less than $10,000	5	363	418	5	353	415	6	350	416
$10,000–$19,999	13	393	440	11	379	434	11	377	435
$20,000–$29,999	17	416	460	15	404	452	13	402	454
$30,000–$39,000	20	429	473	18	418	466	16	416	469
$40,000–$49,999	14	441	487	13	430	480	13	429	482
$50,000–$59,999	10	449	497	11	440	491	11	437	492
$60,000–$69,999	6	456	505	7	449	500	8	446	502
$70,000 or more	15	469	523	19	469	528	23	469	531
Parents' highest education level									
No high school diploma	4	347	410	5	339	409	5	336	407
High school diploma	37	402	446	38	395	443	36	393	445
Associate's degree	7	414	457	8	407	454	8	406	458
Bachelor's degree	27	446	496	27	442	497	27	443	503
Graduate degree	24	476	524	23	476	528	24	478	535
Locality									
Large city	23	418	466	24	410	463	23	410	468
Mid-size city	13	431	477	13	424	474	14	424	479
Small city, town	20	429	474	20	423	471	19	422	475
Suburb	33	443	493	32	439	494	32	441	500
Rural area	11	421	461	12	413	458	11	413	462

SOURCE: College Entrance Examination Board, *College Bound Seniors: Profile of SAT and Achievement Test Takers*, various years.

Table 20-5 Average verbal and mathematics SAT scores of college-bound seniors, by race/ethnicity and parents' highest education level: 1994

Parents' highest education level	White		Black		Mexican American		Puerto Rican	
	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math
No high school diploma	371	420	306	350	330	391	320	356
High school diploma	411	460	337	374	371	426	359	398
Associate's degree	420	472	351	386	388	437	365	406
Bachelor's degree	455	510	376	410	415	466	382	434
Graduate degree	486	540	402	435	427	478	411	463

Parents' highest education level	Other Hispanic		Asian American		American Indian		Other	
	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math
No high school diploma	323	377	331	479	329	378	338	410
High school diploma	372	420	377	502	377	421	390	439
Associate's degree	389	435	392	500	388	435	403	451
Bachelor's degree	413	466	423	547	421	468	441	500
Graduate degree	426	487	487	588	440	483	484	541

SOURCE: College Entrance Examination Board, *College Bound Seniors: 1994 Profile of SAT and Achievement Test Takers*.

Table 20-6 Average verbal and mathematics SAT scores of college-bound seniors, by class rank expressed in quintiles: 1977–94

Year	Top tenth		Second tenth		Second fifth		Third fifth		Fourth fifth		Lowest fifth	
	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math	Verbal	Math
1977	518	574	452	499	415	453	372	401	347	374	339	364
1978	515	570	450	494	414	451	372	400	349	374	339	364
1979	514	568	448	494	413	451	371	400	347	372	337	364
1980	510	568	446	494	411	451	370	401	346	373	339	366
1981	511	567	447	496	412	453	371	402	348	374	339	368
1982	511	568	449	497	415	454	374	404	349	375	343	368
1983	508	570	447	498	414	455	374	403	351	375	343	369
1984	511	575	450	503	417	459	377	406	353	377	341	365
1985	516	577	455	511	421	463	381	411	357	380	346	369
1986	514	579	454	507	419	460	381	410	360	383	352	376
1987	518	585	456	511	418	461	380	409	358	380	353	374
1988	515	585	454	511	417	463	379	411	358	382	352	373
1989	515	585	453	512	416	463	376	410	354	381	346	373
1990	512	585	449	512	412	463	373	410	351	381	342	370
1991	512	584	448	511	411	462	372	409	350	379	340	368
1992	512	585	448	511	412	464	373	411	350	379	338	363
1993	513	586	449	513	412	466	373	413	350	380	336	363
1994	512	586	447	514	410	467	373	415	349	382	332	363

SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors, 1972–1994.* (Copyright ©1994 by College Entrance Examination Board. All rights reserved.)

Table 20-7 Percentage of students intending to major in selected fields, and their verbal and mathematics SAT scores: 1994

Intended college major	Percent of test-takers intending to major in that subject			SAT scores	
	Total	Male	Female	Verbal	Math
Agriculture/Natural resources	2	2	1	410	453
Architecture/Environmental design	3	3	1	407	492
Arts: Visual and performing	6	5	5	434	463
Biological sciences	5	4	5	466	517
Business and commerce	14	13	12	397	469
Communications	4	3	4	442	464
Computer/Information sciences	3	4	1	406	488
Education	8	4	10	407	447
Engineering	9	14	3	446	553
Foreign/Classical languages	1	0	1	475	506
General/Interdisciplinary	0	0	0	500	531
Health and allied sciences	19	11	22	417	474
Home economics	0	0	0	374	414
Language and literature	1	1	1	529	518
Library and archival sciences	0	0	0	457	481
Mathematics	1	1	0	471	611
Military sciences	1	1	0	424	481
Philosophy/Religion/Theology	0	1	0	478	509
Physical sciences	1	2	1	496	574
Public affairs and services	3	3	2	376	415
Social sciences and history	12	8	14	450	479
Technical and vocational	1	1	1	353	406
Undecided	6	6	5	423	482

NOTE: Numbers appearing as zeros have a numeric value less than 0.5.

SOURCE: College Entrance Examination Board, *College Bound Seniors: 1994 Profile of SAT and Achievement Test Takers.*

Note on interpreting SAT test scores and the new version of the SAT

Interpreting Test Scores

According to the College Board, the Scholastic Aptitude Test (SAT) is designed to measure verbal and quantitative reasoning skills related to academic performance in college. SAT scores are statistically controlled to maintain the same meaning from year to year, and therefore useful comparisons over time can be made.[1]

Since 1941, SAT scores have been expressed relative to the performance of a group of approximately 11,000 candidates who took the test in 1941.[2] The mean raw score of that group was given the scaled score of 500 with a standard deviation of 100. In order that scores could be compared to this reference group, a short set of common items is included in each year's forms. Each new form is then linked with a previous form through these common items, allowing the forms to be equated back to the 1941 form. Therefore, a score of 500 on any form of the SAT corresponds to the mean of the 1941 group. Likewise, a score of 600 falls one standard deviation above the mean of the 1941 group, and a score of 400 falls one standard deviation below the mean of the 1941 group.[3]

The decline or rise of test scores depends on many factors. Changes can involve variations in the composition of the test-takers. For example, between 1963 and 1970, a significant SAT score decline occurred. Because of a continuing increase in the proportion of high school graduates going to college over this period, the group of test-takers became progressively less selective, and this was likely a major factor in the score decline.[4] The College Board notes that the relationship between SAT test scores and students' characteristics are "complex and interdependent."[5] For example, educational, demographic, and socioeconomic factors might influence test scores. However, while these factors may be related, they are not necessarily causal. Moreover, changes in test scores can also be related to variations in performance among similar types of test-takers.

Standard Deviation Units

Performance on the SAT can be measured in a number of ways. Changes in standard deviation units is one useful metric. Standard deviation units indicate how scores, on average, deviated from the mean. Since the standard deviation is measured on a *common scale* across different tests, it can also be used to compare score changes on a variety of measures.[6]

Once changes in scores across measures have been noted, the significance of these changes should be considered. Some have considered a decline of one standard deviation to be significant. This designation, however, is arbitrary.[7] In *Investment in Learning*, Howard Bowen provides some guidelines for describing changes in standard deviation units (SDUs).[8]

Estimated changes as expressed in SDUs	Descriptive judgment
+.75 or above	Extreme increase
+.40 to .74	Large increase
+.20 to .39	Moderate increase
+.10 to .19	Small increase
-.09 to +.09	No change
-.10 to -.19	Small decline
-.20 to -.39	Moderate decline
-.40 to -.74	Large decline
-.75 or below	Extreme decline

Changes in standard deviation units are calculated using the following formula:

$$\frac{\mu_1 - \mu_2}{\sqrt{\frac{1}{2}(\sigma_1^2 + \sigma_2^2)}}$$

where μ_1 and μ_2 are the mean scores in years 1 and 2, respectively, and σ_1 and σ_2 are the standard deviations of scores in years 1 and 2, respectively.

For example, table 20-1 indicates that between 1980 and 1985, mean verbal scores increased 7 points, and between 1980 and 1987, mean mathematics scores increased 10 points.

Applying the above formula, the following standard deviation units are produced:

Verbal: 431-424/110.5 = +.063

Math: 476-466/119.5 = +.084

According to Bowen's template, the changes in standard deviation units suggest no significant change in scores during this period. Using the same calculation, the declines in verbal and mathematics scores from 1972 to 1993 were -.259 and -.050, respectively — moderate and not significant declines.

The New Version of the SAT

A new version of the SAT, now called the Scholastic Assessment Test, was introduced in March of 1994. The SAT was divided into the SAT I: Reasoning Tests, and the SAT II: Subject Tests. The SAT I is organized into verbal and mathematics sections similar to the previous version of the SAT, while the SAT II replaces the achievement tests for specific subject areas. Scores on the mathematics section of the SAT I can be compared to those from the previous version of the test. The new mathematics section contains some grid-in (or fill-in-the-blank) items, and calculators can now be used during the test; however, otherwise relatively little has changed. Because only minor changes were made to the types of questions students must complete, scores on the new mathematics section are comparable to those from the previous test version, and the scores of the March 1994 test-takers were included in the results for the graduating class of 1994. However, the verbal test has changed significantly. The original version of the SAT contained four types of verbal items: reading comprehension, sentence completion, analogies, and antonyms. The new SAT contains only three types of verbal items: critical reading, sentence completion, and analogies. These changes do not provide subscores comparable to the previous subscores.

Therefore, the verbal scores reported for the graduating class of 1994 do not include the March test-takers who took the new version of the SAT, approximately 3 percent of all test-takers. Because the March population was excluded in 1994, the verbal scores from this year are not necessarily comparable to other years. Any student taking the SAT after March 1994 took the new version, and these scores will be reported in 1995.

NOTES:

[1] College Entrance Examination Board. *National Report: College Bound Seniors,* 1991.

[2] Anne Anastasi. *Psychological Testing.* MacMillan, Fifth edition, 1982, p. 90.

[3] College Entrance Examination Board. *National Report: College Bound Seniors,* 1991.

[4] College Entrance Examination Board. *On Further Examination: Report of the Advisory Panel on the Scholastic Aptitude Test Score Decline,* 1977.

[5] College Entrance Examination Board, *National Report: College Bound Seniors,* 1991.

[6] The Congress of the United States, Congressional Budget Office. *Trends in Educational Achievement,* April 1986.

[7] Clifford Adelman. *The Standardized Test Scores of College Graduates, 1964-1982.* National Institute of Education, 1985, p.11.

[8] Howard Bowen. *Investment in Learning.* Jossey-Bass, 1977.

Table 21-1 Scores on the Graduate Record Examination (GRE) and the number of GRE test-takers: School years ending 1965–93

		GRE test-takers		GRE scores				
					Verbal		Quantitative	
School year ending	Number of bachelor's degrees	Number	As percent of bachelor's degrees[1]	Total	Mean	Standard deviation	Mean	Standard deviation
1965	501,713	93,792	18.7	1,063	530	124	533	137
1966	520,923	123,960	23.8	1,048	520	124	528	133
1967	558,852	151,134	27.0	1,047	519	125	528	134
1968	632,758	182,432	28.8	1,047	520	124	527	135
1969	729,071	206,113	28.3	1,039	515	124	524	132
1970	792,656	265,359	33.5	1,019	503	123	516	132
1971	839,730	293,600	35.0	1,009	497	125	512	134
1972	887,273	293,506	33.1	1,002	494	126	508	136
1973	922,362	290,104	31.5	1,009	497	125	512	135
1974	945,776	301,070	31.8	1,001	492	126	509	137
1975	922,933	298,335	32.3	1,001	493	125	508	137
1976	925,746	299,292	32.3	1,002	492	127	510	138
1977	919,549	287,715	31.3	1,004	490	129	514	139
1978	921,204	286,383	31.1	1,002	484	128	518	135
1979	921,390	282,482	30.7	993	476	130	517	135
1980	929,417	272,281	29.3	996	474	131	522	136
1981	935,140	262,855	28.1	996	473	128	523	136
1982	952,998	256,381	26.9	1,002	469	130	533	137
1983	969,510	263,674	27.2	1,014	473	131	541	138
1984	974,309	265,221	27.2	1,016	475	130	541	139
1985	979,477	271,972	27.8	1,019	474	126	545	140
1986	987,823	279,428	28.3	1,027	475	126	552	140
1987	[2]991,264	293,560	29.6	1,027	477	126	550	140
1988	994,829	303,703	30.5	1,040	483	123	557	140
1989	1,018,775	326,096	32.0	1,044	484	125	560	142
1990	[2]1,051,344	344,572	[2]32.8	1,048	486	123	562	143
1991	[2]1,094,538	379,882	[2]34.7	1,047	485	122	562	141
1992	[2]1,136,553	411,528	[2]36.2	1,044	483	120	561	140
1993	[3]1,145,000	400,246	[3]35.0	1,038	481	117	557	140

[1] Ratio of the number of GRE test-takers in a year to the number of bachelor's degrees awarded in that year expressed as a percentage.

[2] Revised from previously published data.

[3] Estimated.

SOURCE: Educational Testing Service and U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 234.

Table 21-2 Characteristics of Graduate Record Examination (GRE) test-takers: school years ending 1976–88

School year ending	Percent who are U.S. citizens	*Percent for whom English is not the preferred language
1976	92.5	6.0
1977	91.3	6.0
1978	91.1	6.0
1978	*89.1	—
1979	90.0	8.0
1980	89.3	8.0
1981	86.8	9.0
1982	86.7	10.2
1983	86.1	10.8
1984	85.9	11.4
1985	84.9	11.8
1986	84.5	12.4
1987	84.2	12.7
1988	*79.5	—

— Not available

* Based on revised procedures including an improved sample and data handling procedures. See Wah and Robinson (1990).

SOURCE: Diane M.Wah and Dawn S. Robinson, *Examinee and Score Trends for the GRE General Test: 1977-78, 1982-83, 1986-87, and 1987-88*, Educational Testing Service, 1990. Graduate Record Examination Board, *A Summary of Data Collected from Graduate Record Examinations Test-Takers During 1986-87: Data Summary Report #12*, June 1988 and earlier editions.

Table 21-3 Graduate Record Examination (GRE) scores for U.S. citizens only: school years ending 1973–88

		Verbal			Quantitative		
School year ending	Total	Mean	Standard deviation	Percent scoring over 500	Mean	Standard deviation	Percent scoring over 500
1973	1,010	500	—	—	510	—	—
1974	1,003	498	—	—	505	—	—
1975	1,004	497	—	—	507	—	—
1976	1,005	498	—	—	507	—	—
1977	1,004	495	—	—	509	—	—
1978	1,003	491	—	—	512	—	—
1979	1,011	499	118	49.7	512	130	53.8
1980	1,013	500	117	50.1	513	129	54.7
1981	1,015	499	115	50.8	516	130	55.8
1982	1,019	498	115	49.4	521	132	58.8
1983	1,032	503	117	50.9	529	133	59.7
1984	1,032	504	116	50.7	528	134	58.4
1985	1,029	502	114	49.9	527	134	58.6
1986	1,038	506	113	52.0	532	134	60.2
1987	1,036	505	115	51.5	531	134	59.5
1988*	1,045	508	114	—	537	135	—

— Not available.

* Based on revised procedures. Earlier procedures reported participants in international administration only. The later procedures included participants in international administration (including standby examinees) as well as special administrations at regional offices, Defense Activity for Non-Traditional Education Support (DANTES) for military personnel, and the Summer Institutional Testing Program (SITP). See Wah and Robinson (1990).

SOURCE: Diane M. Wah and Dawn S. Robinson, *Examinee and Score Trends for the GRE General Test: 1977-78, 1982-83, 1986-87, and 1987-88*, Educational Testing Service, 1990. Graduate Record Examination Board, *A Summary of Data Collected from Graduate Record Examinations Test-Takers During 1986-87: Data Summary Report #12*, June 1988 and earlier editions.

Table 21-4 Number of students taking the GRE subject tests as a percentage of college graduates, and their means and standard deviations, by subject: Selected school years ending 1983, 1988, and 1993

	1982-83			1987-88			1992-93		
Subject	Percentage distribution of subject tests	Mean	Standard deviation	Percentage distribution of subject tests	Mean	Standard deviation	Percentage distribution of subject tests	Mean	Standard deviation
All subjects	**100.0**	—	—	**100.0**	—	—	**100.0**	—	—
Mathematics and science	38.1	—	—	34.7	—	—	32.4	—	—
Mathematics	4.6	695	153	5.0	720	161	5.2	737	166
Biology	16.9	617	115	16.1	615	114	13.6	606	114
Chemistry	6.5	615	105	5.9	631	108	6.0	662	133
Geology	5.4	574	87	1.9	582	88	1.5	565	84
Physics	4.7	641	139	5.8	645	147	6.1	664	153
Computer and engineering sciences	15.7	—	—	18.2	—	—	14.4	—	—
Computer science	5.0	602	98	7.9	622	98	7.4	648	99
Engineering	10.7	590	114	10.3	622	120	7.0	602	115
Social sciences	30.4	—	—	28.9	—	—	34.0	—	—
Economics	4.4	613	107	3.6	625	105	3.3	637	120
Education	5.5	453	90	4.3	467	85	2.6	462	80
Psychology	18.8	542	95	18.9	537	94	25.0	536	97
Sociology	1.7	434	106	2.1	434	100	3.1	425	94
English and history	12.1	—	—	15.0	—	—	17.1	—	—
English literature	6.3	520	98	8.7	525	94	11.5	516	94
History	3.1	502	77	3.6	505	79	3.6	499	76
Political science	2.7	463	87	2.7	457	80	2.1	453	76
Foreign Language	1.1	—	—	1.2	—	—	—	—	—
French	0.6	508	88	0.5	519	88	—	—	—
Spanish	0.5	520	106	0.7	533	111	—	—	—
Music*	2.6	503	91	2.1	492	88	2.1	502	94

— Not applicable.

* The music test was revised beginning with the 1989-90 school year.

NOTE: The number of subject tests as a percentage of general tests taken has decreased over the years, falling from 29 percent in 1983 to 26 percent in 1988 and to 19 percent in 1993. Subject matter scores range from 200 to 990.

SOURCE: Educational Testing Service and U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 303.

Table 22-1 Percentage of 25- to 29-year-olds who have completed high school,* by race/ethnicity and sex: 1971–94

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	77.7	79.1	76.5	81.7	83.0	80.5	58.8	56.7	60.5	48.3	51.3	45.7
1972	79.8	80.5	79.2	83.4	84.1	82.7	64.1	61.7	66.0	47.6	47.1	47.9
1973	80.2	80.6	79.8	84.0	84.2	83.9	64.1	63.2	64.9	52.3	54.2	50.6
1974	81.9	83.1	80.8	85.5	86.0	85.0	68.4	71.5	65.8	54.1	55.9	52.5
1975	83.1	84.5	81.7	86.6	88.0	85.2	71.1	72.3	70.1	53.1	52.2	53.9
1976	84.7	86.0	83.5	87.7	89.0	86.4	74.0	72.8	74.9	58.1	57.6	58.4
1977	85.4	86.6	84.2	88.6	89.2	88.0	74.5	77.5	72.0	58.0	61.9	54.6
1978	85.3	86.0	84.6	88.5	88.8	88.2	77.4	78.7	76.3	56.5	58.5	54.6
1979	85.6	86.3	84.9	89.2	89.8	88.5	74.7	74.0	75.3	57.1	55.5	58.6
1980	85.4	85.4	85.5	89.2	89.1	89.2	76.7	74.8	78.3	57.9	57.0	58.8
1981	86.3	86.5	86.1	89.8	89.7	89.9	77.6	78.8	76.6	59.8	59.1	60.4
1982	86.2	86.3	86.1	89.1	89.1	89.1	81.0	80.4	81.5	61.0	60.6	61.2
1983	86.0	86.0	86.0	89.3	89.3	89.3	79.5	79.0	79.9	58.4	57.8	58.9
1984	85.9	85.6	86.3	89.4	89.4	89.4	79.1	75.9	81.7	58.6	56.7	60.1
1985	86.2	85.9	86.4	89.5	89.2	89.9	80.5	80.6	80.5	61.0	58.6	63.1
1986	86.1	85.9	86.4	89.6	88.7	90.4	83.5	86.4	81.0	59.1	58.2	60.0
1987	86.0	85.5	86.4	89.4	88.9	90.0	83.5	84.5	82.6	59.8	58.6	61.0
1988	85.9	84.7	87.1	89.7	88.4	90.9	80.9	80.9	80.9	62.3	59.9	64.8
1989	85.5	84.4	86.5	89.3	88.2	90.4	82.3	80.5	83.8	61.0	61.0	61.1
1990	85.7	84.4	87.0	90.1	88.6	91.6	81.8	81.4	82.0	58.2	56.6	59.9
1991	85.4	84.9	85.8	89.8	89.2	90.5	81.8	83.6	80.1	56.7	56.4	57.2
High school graduate - Diploma or equivalency certificate												
1992	86.3	86.1	86.5	90.6	90.3	91.1	80.9	82.7	79.3	60.9	61.1	60.6
1993	86.7	86.0	87.4	91.2	90.7	91.8	82.7	84.8	80.8	60.9	58.2	63.9
1994	86.1	84.5	87.6	91.1	90.0	92.3	84.1	82.8	85.3	60.3	58.0	63.0

* 12 years of schooling completed for 1971–91 and high school diploma or equivalency certificate for 1992–94.

NOTE: Beginning in 1992, the Current Population Survey changed the questions it used to obtain the educational attainment of respondents. See the supplemental note to this indicator for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 22-2 Percentage of 25- to 29-year-old high school graduates* who have completed 1 or more years of college, by race/ethnicity and sex: 1971–94

	All			White			Black			Hispanic		
March	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	43.6	48.7	38.4	44.9	50.2	39.5	30.9	29.0	32.2	30.6	38.3	22.8
1972	45.1	50.7	39.5	46.3	52.3	40.2	33.3	31.7	34.6	32.1	37.2	28.3
1973	45.3	51.4	39.4	46.6	53.0	40.2	33.5	33.5	33.5	31.6	39.4	24.5
1974	48.9	53.8	44.1	50.4	55.6	45.2	35.4	36.9	34.1	39.2	44.1	34.5
1975	50.1	56.0	44.1	51.2	57.3	44.9	38.7	41.0	36.8	41.1	50.4	32.6
1976	52.1	58.2	46.0	53.8	60.1	47.4	37.2	40.5	34.7	36.3	42.3	31.2
1977	53.2	58.0	48.5	54.8	59.9	49.7	41.7	44.2	39.6	41.1	42.6	39.5
1978	54.4	59.3	49.6	55.9	61.4	50.3	44.9	45.2	44.4	43.6	47.2	40.1
1979	54.1	57.7	50.6	55.7	59.4	51.9	41.7	40.7	42.5	44.0	50.7	38.0
1980	52.3	55.8	49.0	53.8	57.3	50.3	42.3	43.6	41.3	39.9	45.5	34.7
1981	50.1	52.7	47.5	51.2	54.1	48.3	42.5	43.0	42.2	39.6	41.7	37.7
1982	49.9	51.5	48.3	50.7	52.2	49.1	45.8	47.4	44.6	39.6	40.6	38.7
1983	50.6	52.1	49.0	51.6	53.4	49.7	41.6	42.0	41.2	42.9	41.1	44.6
1984	50.1	50.9	49.3	51.0	51.7	50.3	41.6	41.6	41.7	45.6	47.5	44.0
1985	50.8	51.5	50.1	51.8	52.5	51.2	42.7	42.4	42.9	44.2	45.9	42.9
1986	51.0	51.4	50.8	52.3	52.8	51.8	43.4	41.5	45.2	42.9	42.8	43.0
1987	50.7	50.4	51.0	51.4	51.5	51.4	43.0	38.4	47.0	44.6	46.3	43.1
1988	50.8	51.6	50.1	51.8	52.4	51.2	41.2	42.9	39.7	44.9	44.3	45.6
1989	51.3	52.0	50.5	52.8	53.4	52.2	42.1	42.2	41.9	44.3	44.8	43.9
1990	52.0	51.8	52.1	53.6	53.4	53.8	44.1	43.0	45.0	40.1	40.4	39.8
1991	53.1	52.3	53.8	54.9	54.7	55.1	43.2	38.3	47.7	42.2	40.9	43.4
Some college or more												
1992	56.7	56.0	57.4	58.8	58.3	59.2	44.7	42.3	46.9	46.8	44.5	49.6
1993	58.9	57.6	60.1	61.0	60.3	61.6	48.4	43.6	52.5	48.8	46.1	51.9
1994	60.5	58.9	62.0	62.7	61.0	64.3	49.6	48.7	50.3	51.5	48.3	55.0

* 12 years of schooling completed for 1971-91 and high school diploma or equivalency certificate for 1992-94.

NOTE: Beginning in 1992, the Current Population Survey changed the questions it used to obtain the educational attainment of respondents. See the supplemental note to this indicator for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 22-3 Percentage of 25- to 29-year-old high school graduates* who have completed 4 or more years of college, by race/ethnicity and sex: 1971–94

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	22.0	25.8	18.1	23.1	27.0	19.1	11.5	12.1	10.9	10.5	15.4	5.8
1972	23.7	27.3	20.2	24.9	28.6	21.1	13.1	11.6	14.3	7.8	9.5	6.4
1973	23.6	26.8	20.5	24.8	28.3	21.3	12.7	11.3	13.8	10.8	12.4	9.7
1974	25.3	28.7	21.8	27.2	31.1	23.2	11.5	12.3	11.0	10.1	8.9	11.2
1975	26.3	29.7	22.9	27.5	31.1	23.7	14.7	15.3	14.2	16.6	19.7	13.4
1976	28.0	32.0	24.1	29.3	33.5	25.0	17.6	16.5	18.6	12.7	17.9	8.2
1977	28.1	31.2	25.1	29.8	33.4	26.3	16.9	16.5	17.3	11.5	11.3	11.7
1978	27.3	30.2	24.4	28.9	32.6	25.3	15.2	13.6	16.5	17.1	16.4	17.9
1979	27.0	29.9	24.2	28.6	31.6	25.5	16.6	17.8	15.7	12.9	14.2	11.4
1980	26.3	28.1	24.5	28.0	30.1	26.0	15.0	14.0	15.8	13.2	15.0	11.8
1981	24.7	26.6	22.8	26.3	28.4	24.2	14.9	15.4	14.5	12.5	14.4	10.9
1982	25.2	26.9	23.4	26.7	28.8	24.6	15.6	14.6	16.4	15.9	17.8	14.2
1983	26.2	27.8	24.6	27.4	29.4	25.4	16.2	16.5	15.9	17.8	16.8	18.8
1984	25.5	27.1	24.0	27.0	28.5	25.4	14.8	17.1	13.0	18.1	17.0	19.2
1985	25.7	26.9	24.6	27.3	28.6	26.0	14.4	12.9	15.6	18.2	18.6	17.7
1986	26.0	26.7	25.3	28.1	29.1	27.1	14.2	11.9	16.3	15.3	15.4	15.2
1987	25.6	26.1	25.2	27.6	28.0	27.1	13.8	14.0	13.6	14.5	15.7	13.4
1988	26.4	27.6	25.2	28.0	29.1	26.9	14.8	15.3	14.4	18.1	19.8	16.3
1989	27.3	28.3	26.5	29.5	30.5	28.5	15.4	15.0	15.6	16.5	15.7	17.2
1990	27.1	28.0	26.2	29.3	30.0	28.6	16.4	18.6	14.5	14.0	12.9	15.2
1991	27.2	27.0	27.3	29.7	29.7	29.8	13.4	13.7	13.1	16.3	14.4	18.1
Bachelor's degree or more												
1992	27.3	26.9	27.8	30.0	29.5	30.4	13.7	14.2	13.2	15.6	14.3	17.0
1993	27.3	27.2	27.4	29.8	30.0	29.5	16.1	14.8	17.2	13.6	12.1	15.3
1994	27.0	26.6	27.4	29.7	29.8	29.6	16.2	14.0	17.9	13.3	11.3	15.5

* 12 years of schooling completed in 1971–91 and high school diploma or equivalency certificate for 1992–94.

NOTE: Beginning in 1992, the Current Population Survey changed the questions it used to obtain the educational attainment of respondents. See the supplemental note to this indicator for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Note on educational attainment

The Current Population Survey, which is used for *Indicators 6, 22, 29, 30, 32*, and others, changed the questions used to determine a respondent's educational attainment beginning in 1992. Before 1992, the questions were 1) "What is the highest grade or year of regular school ... has ever attended?" and 2) "Did ... complete the grade?" There were 19 response categories for grades 1 through 8: 1st through 4th year of high school, and 1st through 6th year of college.

If respondents attended, for example, grade 12 but did not complete it, it was assumed that they had completed grade 11. If the highest grade respondents had completed was 9, 10, or 11, they were classified as high school dropouts. If the highest grade completed was 12 or greater, they were considered to have completed high school. If it was the 4th year of college or greater, they were considered to have completed college.

Beginning in 1992, the two questions were changed to a single question: "What is the highest level of school ... has completed or the highest degree ... has received?" In the new response categories, several of the lower levels have been collapsed into a single summary category such as "1st, 2nd, 3rd, or 4th grades." At the high school level, a new category "12th grade, no diploma" was added. The biggest change was in the categories for high school completion and beyond, which are as follows:

- High school graduate—high school diploma or equivalent (for example, GED)
- Some college but no degree
- Associate's degree in college—Academic program
- Associate's degree in college—Occupational or vocational program
- Bachelor's degree (For example: BA, AB, BS)
- Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)
- Professional school degree (For example: MD, DDS, DVM, LLB, JD)
- Doctoral degree (For example: PhD, EdD)

The new question puts more emphasis on credentials received beginning at the high school level, and it puts less emphasis on the level attended or completed in college if that attendance did not lead to a credential.

These changes created some uncertainty about the comparability of measures, such as high school completion rates and college completion rates over time.

High school completion: The earlier education attainment question did not deal explicitly with high school equivalency certificates. Therefore, it is possible that a person who attended grade 10, dropped out without completing it, and later took the GED test and received a high school equivalency credential would not have been counted as a high school completer. The new question, however, explicitly treats these people as high school graduates. Since 1988, an additional question was added to the October Current Population Survey that explicitly asked respondents whether they had taken the GED. The vast majority of those who responded "yes" were classified as high school graduates using the attainment question.

The earlier education attainment question treated people who completed grade 12 as high school graduates. However, the new question added a new response category called "12th grade, no diploma," and these respondents were not treated as graduates. However, the number of people in this category has been very small. In summary, it appears that the change has had minor effects on measured high school completion rates.

College completion: With the increasing prevalence of people taking more than 4 years to finish college (i.e., receive a bachelor's degree), some analysts have worried that the college completion rate based on "4th year or higher of college completed" would overstate the bachelor's degree (or higher) completion rate. However, the college completion rates among 25- to 29-year-olds in 1992 and 1993 using the new question are very similar to the completion rates in 1990 and 1991 using the old questions. In summary, it appears that the change has had a very small effect on measured college completion rates.

Some college. With the new question, someone who attends college for only a few months should respond "Some college," but with the old questions they should have responded "Attended first year of college and did not complete it." In the past, the calculation of the percentage of the population with 1 to 3 years of college excluded these people. However, with the new question, the information to exclude them is not available, and those with only a few months of college are included in the category "Some college." So, in principle, the percentage of people with "Some college" or an associate's degree would be expected to be larger than the percentage with 1 to 3 years of college. Therefore, it does not appear useful to compare the percentage with "Some college or an associate's degree," using the new item, to the percentage who completed "1 to 3 years of college," using the old item.

Indicators 29 and *30* use labor force statistics for the civilian population and annual earnings for wage and salary workers with different levels of educational attainment. The discussion above suggests that the "high school graduate with no further education" category based on the new items is larger than before because it includes equivalency graduates but smaller than before because it excludes those who completed "12th grade, no diploma," and those with only a few months of college. The latter group is now included in the "1 to 3 years of college" category. Nevertheless, the employment and earnings of the respondents who have been added and dropped from each category are similar; therefore, the net effect of the misclassification on employment rates and average annual earnings are likely to be minor. For this reason, it was decided that it would be useful to continue the series—that is, to compare the employment rates and average annual earnings of recent cohorts with "Some college or an associate's degree" to older cohorts who completed "1 to 3 years of college."

For further information on this issue, see Robert Kominski and Paul M. Siegel; "Measuring Education in the Current Population Survey," *Monthly Labor Review*, September 1993.

Table 23-1 Percentage of the population who have completed secondary and higher education, by sex, country, and age: 1992

Country	Both sexes		Male		Female	
	Secondary education	Higher education	Secondary education	Higher education	Secondary education	Higher education
			25–64 years old			
Large countries						
United States[1]	84.0	23.6	83.8	26.0	84.3	21.3
Japan[2]	69.7	13.3	70.9	21.5	68.5	5.2
Germany	81.9	11.6	88.6	14.8	75.1	8.3
United Kingdom	68.1	10.7	73.9	13.8	62.2	7.7
France	52.2	10.2	56.2	11.3	48.4	9.2
Italy	28.4	6.4	30.5	7.3	26.4	5.4
Canada	71.3	15.0	71.0	16.8	71.5	13.2
Other countries						
Australia[3]	52.8	11.8	62.9	12.9	42.6	10.7
Austria	68.0	6.9	77.7	7.9	58.3	6.0
Belgium	45.3	8.8	47.0	11.6	43.6	6.1
Denmark	58.9	13.3	63.4	14.0	54.4	12.7
Finland	61.5	10.4	61.1	12.1	61.9	8.8
Ireland	42.2	8.3	38.9	9.8	45.5	6.9
Netherlands	57.9	20.9	63.8	23.8	51.9	17.8
New Zealand	56.4	11.1	62.2	13.5	50.8	8.7
Norway	79.0	12.4	79.9	14.8	78.1	10.0
Portugal[4]	14.2	5.0	14.7	5.4	13.7	4.6
Spain	22.9	10.0	25.7	10.7	20.3	9.4
Sweden	69.9	11.7	68.3	12.2	71.4	11.2
Switzerland	80.8	8.0	87.0	11.0	74.6	5.1
			25–34 years old			
Large countries						
United States[1]	86.5	23.2	85.9	23.3	87.0	23.1
Japan[2]	90.6	22.9	89.3	34.2	91.8	11.5
Germany	88.6	11.8	90.9	13.0	86.3	10.5
United Kingdom	80.9	12.5	82.2	14.3	79.6	10.7
France	67.1	12.3	68.4	12.4	65.7	12.1
Italy	42.4	6.8	41.5	6.8	43.3	6.7
Canada	80.8	16.1	79.0	16.0	82.5	16.2
Other countries						
Australia[3]	56.6	13.1	65.2	13.1	47.8	13.1
Austria	78.9	7.9	85.0	7.6	72.7	8.3
Belgium	59.9	11.5	57.7	13.2	62.2	9.6
Denmark	66.9	12.3	67.7	12.4	66.0	12.1
Finland	81.7	11.1	79.8	12.2	83.7	9.9
Ireland	55.8	9.8	50.3	10.1	61.1	9.6
Netherlands	67.9	23.6	68.6	24.3	67.1	22.8
New Zealand	59.6	12.6	64.1	14.3	55.4	10.9
Norway	88.1	12.7	86.5	12.9	89.7	12.4
Portugal[4]	20.6	6.9	18.7	6.1	22.5	7.7
Spain	41.3	16.3	41.2	14.5	41.3	18.1
Sweden	88.0	9.3	81.4	9.4	84.7	9.3
Switzerland	87.2	8.7	89.7	11.4	84.7	6.1

Table 23-1 Percentage of the population who have completed secondary and higher education, by sex, country, and age: 1992—Continued

Country	Both sexes		Male		Female	
	Secondary education	Higher education	Secondary education	Higher education	Secondary education	Higher education
			35-44 years old			
Large countries						
United States[1]	88.2	26.8	88.0	28.6	88.3	25.1
Japan[2]	77.0	14.5	77.0	23.6	77.0	5.4
Germany	86.9	15.4	91.3	18.8	82.5	11.9
United Kingdom	71.1	13.0	77.4	16.6	64.9	9.3
France	57.0	11.2	60.9	11.7	53.2	10.7
Italy	34.5	9.2	37.0	10.2	31.9	8.1
Canada	77.5	17.4	77.1	19.1	77.9	15.8
Other countries						
Australia[3]	56.3	14.7	67.1	16.3	45.5	13.1
Austria	70.4	9.4	78.2	10.0	62.7	8.7
Belgium	51.5	10.7	53.2	13.7	49.7	7.6
Denmark	60.9	16.2	65.4	16.2	56.1	16.1
Finland	69.1	13.0	67.9	14.5	70.3	11.5
Ireland[3]	43.6	8.9	41.0	10.6	46.3	7.2
Netherlands	61.0	24.2	66.8	27.7	54.7	20.5
New Zealand	58.3	12.9	63.7	15.1	53.1	10.6
Norway	83.2	15.5	83.7	18.5	82.6	12.2
Portugal[4]	16.7	6.4	17.7	7.1	15.6	5.7
Spain	24.3	10.9	28.0	12.0	20.8	9.9
Sweden	76.1	14.4	73.1	14.9	79.2	13.8
Switzerland	83.9	9.5	88.2	12.6	79.4	6.2
			45-54 years old			
Large countries						
United States[1]	82.7	24.1	82.8	29.0	82.6	19.6
Japan[2]	59.6	9.1	62.4	15.8	56.9	2.5
Germany	80.6	11.4	87.8	16.0	73.1	6.7
United Kingdom	62.0	9.1	70.6	12.9	53.5	5.3
France	47.3	10.4	52.6	12.2	41.9	8.6
Italy	20.5	5.6	24.4	7.0	16.8	4.3
Canada	65.4	14.9	66.1	18.6	64.7	11.1
Other countries						
Australia[3]	50.7	10.9	61.8	12.8	39.1	8.9
Austria	64.9	5.9	77.3	8.5	52.7	3.3
Belgium	38.2	7.4	41.6	11.1	34.8	3.6
Denmark	58.0	13.2	63.3	14.9	52.6	11.5
Finland	52.1	10.4	52.0	12.6	52.2	8.1
Ireland[3]	34.7	7.8	32.5	10.1	37.1	5.5
Netherlands	52.2	18.4	61.2	22.5	42.9	14.1
New Zealand	54.6	10.1	62.4	13.7	46.8	6.4
Norway	75.4	12.6	77.0	15.9	73.7	9.3
Portugal[4]	10.4	3.7	12.2	4.7	7.1	2.8
Spain	13.8	7.1	17.9	9.0	9.8	5.3
Sweden	65.4	13.6	63.4	14.1	67.5	13.1
Switzerland	77.5	7.8	85.8	10.9	68.9	4.6

[1] In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or more.

[2] 1989 data.

[3] 1993 data.

[4] 1991 data.

SOURCE: Organization for Economic Cooperation and Development, Indicators of Education's Systems, *Digest of International Education Statistics*, forthcoming.

Table 24-1 Average years of study required in core subjects for public high school graduation, and percentage of students in districts with graduation requirements at or above the National Commission on Excellence in Education's (NCEE) recommendations, by subject and selected school district characteristics: 1990–91

	English		Math		Science		Four core subjects[1]	
District characteristics	Years	Percent with 4 or more	Years	Percent with 3 or more	Years	Percent with 3 or more	Years	Percent with 13 or more
Total	**3.8**	**81.5**	**2.5**	**41.6**	**2.1**	**21.1**	**11.3**	**19.8**
Residents aged 25 and older who have completed high school								
Less than 65.0 percent	3.9	93.8	2.5	47.3	2.2	22.8	11.3	21.0
65 to 84.9 percent	3.8	81.7	2.5	43.3	2.1	22.6	11.4	20.8
85 percent or more	3.8	71.6	2.3	30.2	2.1	14.3	11.1	13.3
Residents aged 25 and older with a 4-year college degree or higher								
Less than 10.0 percent	3.8	82.2	2.5	44.5	2.1	23.4	11.2	20.6
10.0 to 24.9 percent	3.9	83.5	2.5	41.5	2.2	21.6	11.4	20.2
25.0 percent or more	3.8	75.8	2.4	38.5	2.1	16.9	11.2	15.6
Residents who are minority								
Less than 5.0 percent	3.8	73.3	2.4	31.5	2.1	20.4	11.2	18.0
5.0 to 19.9 percent	3.8	79.7	2.4	39.1	2.1	17.9	11.2	16.8
20.0 to 49.9 percent	3.9	84.7	2.6	54.6	2.2	28.5	11.6	25.8
50.0 percent or more	3.9	95.3	2.4	40.6	2.0	15.5	11.5	15.8
Households receiving public assistance								
Less than 5.0 percent	3.9	81.0	2.5	41.9	2.1	21.9	11.4	19.8
5.0 to 9.9 percent	3.8	79.3	2.5	43.5	2.2	21.1	11.3	19.4
10.0 percent or more	3.9	87.0	2.4	38.0	2.1	20.1	11.3	19.1
Single-parent households in poverty[2]								
Lowest 25 percent	3.8	76.6	2.4	36.6	2.1	17.1	11.3	16.3
Middle 50 percent	3.8	80.8	2.4	40.4	2.1	21.2	11.3	19.3
Highest 25 percent	3.9	89.3	2.5	49.1	2.2	25.1	11.5	22.8
Linguistically isolated households[3]								
Less than 5.0 percent	3.8	82.9	2.5	40.1	2.1	19.3	11.1	16.8
5.0 to 14.9 percent	3.8	79.0	2.5	41.6	2.2	24.6	11.4	22.1
15.0 percent or more	3.9	86.4	2.4	42.5	2.1	15.8	11.5	16.4
Median household income[4]								
Lowest 25 percent	3.8	85.7	2.5	49.7	2.2	27.4	11.4	24.5
Middle 50 percent	3.9	82.8	2.4	40.7	2.1	21.7	11.3	20.3
Highest 25 percent	3.8	76.0	2.4	35.2	2.1	13.7	11.3	12.7
District spending per pupil								
Less than $3,500	3.8	86.2	2.5	44.0	2.1	17.7	11.1	14.9
$3,500 to $4,499	3.8	74.7	2.5	43.2	2.1	20.2	11.2	19.0
$4,500 to $5,499	3.9	81.4	2.6	50.5	2.2	33.2	11.7	32.0
$5,500 or more	3.9	89.6	2.3	27.5	2.1	14.4	11.5	13.8
Urbanicity of district								
Central city	3.9	84.0	2.4	40.9	2.1	18.8	11.5	18.4
Suburban/other urban	3.8	79.6	2.5	41.6	2.1	21.8	11.3	20.5
Rural/small town	3.8	82.3	2.5	42.2	2.2	22.0	11.3	19.8

[1] The fourth core subject is social studies.

[2] The lowest 25 percent are those with 1.8 percent or fewer and the highest 25 percent are those with 5.3 percent or more households headed by a single parent in poverty.

[3] The Census Bureau defines these as households in which no members over age 13 speak English "very well," and all members over age 13 speak a language other than English at home.

[4] The lowest 25 percent are those with median household income less than about $24,000, and the highest 25 percent are those with median household income greater than about $36,000.

NOTE: Estimates are weighted using district enrollment in grades 9-12. Districts with 3-year high school program requirements were excluded from the analysis. These districts comprised about 3 percent of the total. Districts that did not serve students in grades 10-12 were also excluded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 (Teacher Demand and Shortage Questionnaire); Common Core of Data 1989-90; 1990 Census School District Special Tabulation, Summary File Set 1 extract; and NCEE, *A Nation at Risk* (1983).

Table 24-2 Percentage of public high school students in districts with course graduation requirements above their own state's requirements, by subject and selected school district characteristics: 1990–91[1]

District characteristics	English	Math	Social studies	Science	Four core subjects	Computer science	Foreign language
Total	**28.1**	**50.3**	**44.3**	**18.0**	**57.1**	**22.1**	**22.0**
Residents aged 25 and older who have completed high school							
Less than 65.0 percent	25.3	47.7	36.7	15.2	59.6	26.5	20.4
65.0 to 84.9 percent	26.1	49.7	44.3	16.6	53.0	21.2	21.4
85.0 percent or more	35.5	54.4	51.6	25.3	68.2	21.0	23.2
Residents aged 25 and older with a 4-year college degree or higher							
Less than 10.0 percent	24.8	53.6	47.5	20.7	54.1	29.7	18.8
10.0 to 24.9 percent	26.5	47.1	41.5	15.7	55.2	20.2	20.2
25.0 percent or more	34.9	57.1	50.7	22.7	65.6	19.6	29.1
Residents who are minority							
Less than 5.0 percent	29.4	54.3	51.9	27.9	55.7	25.1	15.6
5.0 to 19.9 percent	28.1	49.3	46.1	16.9	58.8	20.8	17.3
20.0 to 49.9 percent	21.0	50.0	39.0	15.1	55.6	23.0	23.6
50.0 percent or more	35.5	45.4	37.7	8.5	57.4	17.7	36.1
Households receiving public assistance							
Less than 5.0 percent	25.6	54.3	46.3	18.8	58.3	22.9	17.2
5.0 to 9.9 percent	25.1	48.7	45.0	18.5	56.1	21.8	20.2
10.0 percent or more	34.9	47.0	40.6	16.1	56.0	21.3	30.0
Single-parent households in poverty[2]							
Lowest 25 percent	30.9	56.2	47.9	20.9	58.8	23.4	22.0
Middle 50 percent	28.9	44.7	42.4	17.3	58.2	21.1	18.1
Highest 25 percent	21.9	55.3	44.8	16.4	52.3	22.5	28.1
Linguistically isolated households[3]							
Less than 5.0 percent	15.0	50.9	45.3	19.0	53.3	20.4	12.5
5.0 to 14.9 percent	27.0	52.6	47.8	22.5	56.3	23.5	16.1
15.0 percent or more	38.7	45.2	37.3	8.7	60.6	20.5	39.1
Median household income[4]							
Lowest 25 percent	18.1	53.1	50.8	19.5	57.3	28.3	17.6
Middle 50 percent	28.0	46.6	40.9	15.7	53.8	19.0	20.7
Highest 25 percent	36.7	54.6	45.0	21.2	62.7	21.9	27.3
District spending per pupil							
Less than $3,500	86.2	44.0	65.0	17.7	14.9	25.3	14.9
$3,500 to $4,499	74.7	43.2	67.1	20.2	19.0	25.0	18.2
$4,500 to $5,499	81.4	50.5	79.6	33.2	32.0	16.0	20.5
$5,500 or more	89.6	27.5	81.1	14.4	13.8	16.7	33.4
Urbanicity of district							
Central city	11.9	51.3	55.9	12.0	63.2	22.6	15.3
Suburban/other urban	32.0	53.6	47.6	21.1	57.9	24.9	18.9
Rural/small town	27.3	40.5	28.2	13.6	46.6	18.7	34.9

[1] Districts in Colorado, Iowa, Massachusetts, Nebraska, and Wyoming were excluded from the analysis for this table to avoid skewing the results, because these states have either no or minimal subject-specific requirements.

[2] The lowest 25 percent are those with 1.8 percent or fewer and the highest 25 percent are those with 5.3 or more households headed by a single parent in poverty.

[3] The Census Bureau defines these as households in which no members over age 13 speak English "very well," and all members over age 13 speak a language other than English at home.

[4] The lowest 25 percent are those with median household income less than about $24,000 and the highest 25 percent are those median household income greater than about $36,000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Demand and Shortage Questionnaire); Common Core of Data 1989-90; 1990 Census School District Special Tabulation, Summary File Set 1 extract; and Education Commission of the States, *Clearinghouse Notes* (1993).

Table 24-3 Average years of study required for public high school graduation, by subject and state: 1990–91

State	English	Math	Social studies	Science	Four core subjects	Computer science	Foreign language
Total	**3.8**	**2.5**	**2.9**	**2.1**	**11.3**	**0.2**	**0.3**
State							
Alabama	3.9	2.2	3.2	2.2	11.5	0.2	0.4
Alaska	4.0	2.1	3.0	2.3	11.4	0.2	0.0
Arizona	4.0	2.3	3.1	2.1	11.5	0.1	0.1
Arkansas	4.0	2.8	2.8	2.3	11.9	0.3	0.1
California	3.7	2.3	3.1	2.0	11.1	0.1	0.7
Colorado	3.7	2.3	3.0	2.2	11.1	0.2	0.1
Connecticut	4.0	3.0	3.0	2.3	12.3	0.1	0.1
Delaware	3.8	2.3	2.7	2.0	10.7	0.1	0.0
District of Columbia	4.0	2.0	2.0	2.0	10.0	1.0	2.0
Florida	4.0	3.0	3.0	2.9	12.9	0.1	0.1
Georgia	3.6	2.4	2.9	2.1	11.0	0.4	0.4
Hawaii	4.0	2.0	4.0	2.0	12.0	0.0	0.0
Idaho	3.8	2.3	2.9	2.3	11.3	0.1	0.2
Illinois	3.6	2.1	2.5	1.5	9.6	0.1	0.3
Indiana	3.7	2.6	2.6	2.2	11.1	0.2	0.0
Iowa	3.5	2.1	3.0	2.0	10.6	0.2	0.0
Kansas	4.0	2.2	2.9	2.0	11.0	0.2	0.1
Kentucky	4.0	3.0	2.2	2.2	11.3	0.1	0.1
Louisiana	3.9	3.0	3.0	3.0	12.9	0.5	0.1
Maine	4.0	2.7	2.4	2.2	11.3	0.6	0.2
Maryland	4.0	3.0	3.0	2.2	12.2	0.5	0.2
Massachusetts	4.0	2.4	2.4	2.0	10.8	0.3	0.4
Michigan	3.6	2.1	2.9	2.0	10.6	0.5	0.3
Minnesota	3.7	1.8	3.5	1.7	10.7	0.1	0.0
Mississippi	4.0	2.5	2.8	2.2	11.5	0.1	0.1
Missouri	3.4	2.2	2.9	2.1	10.5	0.2	0.2
Montana	4.0	2.3	2.6	2.1	10.9	0.2	0.2
Nebraska	3.9	2.2	3.1	2.1	11.2	0.3	0.1
Nevada	3.4	2.3	2.8	1.5	9.9	0.3	0.0
New Hampshire	3.9	2.1	2.5	2.1	10.6	0.7	0.3
New Jersey	4.0	2.8	2.9	2.0	11.6	0.3	0.2
New Mexico	4.0	3.0	3.0	2.1	12.0	0.1	0.2
New York	4.0	2.1	4.0	2.0	12.1	0.1	1.2
North Carolina	4.0	2.4	2.3	2.3	10.9	0.1	0.0
North Dakota	4.0	2.3	3.0	2.1	11.3	0.2	0.0
Ohio	3.6	2.2	2.5	1.6	9.9	0.1	0.1
Oklahoma	4.0	2.3	2.6	2.1	11.0	0.1	0.1
Oregon	3.8	2.0	2.9	1.9	10.6	0.1	0.2
Pennsylvania	4.0	3.1	3.4	2.9	13.3	0.2	0.2
Rhode Island	4.0	2.3	2.3	2.1	10.7	0.5	1.2
South Carolina	3.9	3.0	2.8	2.0	11.8	0.1	0.1
South Dakota	4.0	2.2	3.1	2.2	11.5	0.7	0.1
Tennessee	4.0	2.1	1.8	2.0	10.0	0.1	0.5
Texas	4.0	2.9	2.9	2.2	12.0	0.4	0.4
Utah	3.9	2.1	2.9	2.1	10.9	0.4	0.2
Vermont	3.8	2.7	2.9	2.6	12.0	0.0	0.2
Virginia	3.9	2.4	3.0	2.2	11.5	0.1	0.4
Washington	3.6	2.1	3.0	2.0	10.7	0.1	0.1
West Virginia	4.0	2.5	3.1	2.1	11.7	0.1	0.3
Wisconsin	3.9	2.1	3.1	2.1	11.2	0.2	0.1
Wyoming	3.7	2.3	2.8	2.1	10.9	0.1	0.1

NOTE: Averages are calculated by weighting school district requirements by district enrollment in grades 9 to 12. Districts with 3-year high school program requirements were excluded from the table.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Demand and Shortage Questionnaire).

Table 24-4 **Average years of study required for private high school graduation, by subject and private school type: 1990–91**

Private school type	English	Mathematics	Social studies	Science	Four core subjects	Computer science	Foreign language
Total	**3.9**	**2.8**	**3.0**	**2.4**	**12.1**	**0.4**	**1.4**
Catholic							
Parochial	3.8	2.6	3.0	2.4	11.8	0.6	0.9
Diocesan	4.0	2.7	3.1	2.4	12.2	0.3	1.1
Private order	3.9	2.9	3.0	2.4	12.2	0.5	2.0
Other religious							
Conservative Christian	4.0	2.7	3.3	2.4	12.3	0.4	0.8
Other religious affiliated	3.9	2.7	3.0	2.3	11.8	0.5	1.3
Other religious unaffiliated	3.8	2.8	2.9	2.5	11.9	0.5	1.4
Nonsectarian							
Regular	3.9	3.0	2.9	2.5	12.3	0.5	2.0
Special emphasis	3.7	3.0	2.8	2.5	12.0	0.5	2.0
Special education	3.9	2.7	3.2	2.4	12.2	0.5	0.2

NOTE: Averages are calculated by weighting the school's requirements by the school's enrollment in grades 9 to 12. Estimates vary somewhat from those in other publications that weight by the number of schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 (Teacher Demand and Shortage Questionnaire).

Table 24-5 Percentage of public high school students in districts with course graduation requirements at or above the NCEE recommendations, by subject and state: 1990–91

State	English (4 or more)	Math (3 or more)	Social studies (3 or more)	Science (3 or more)	Four core subjects (13 or more)	Computer science (0.5 or more)	Foreign language (2 or more)
Total	**85.7**	**43.0**	**75.5**	**21.9**	**20.5**	**23.0**	**21.9**
State							
Alabama	96.0	24.3	93.9	17.9	19.5	26.3	23.8
Alaska	96.6	7.7	99.3	5.5	5.8	41.9	0.0
Arizona	100.0	28.0	86.0	12.6	12.5	9.4	9.4
Arkansas	98.5	78.3	77.9	34.3	22.5	32.5	13.0
California	74.1	29.3	92.7	4.8	9.6	16.3	57.5
Colorado	85.5	20.1	69.2	16.7	10.1	23.8	6.1
Connecticut	98.0	94.2	97.4	28.3	26.1	14.3	4.1
Delaware	94.0	39.3	70.2	6.6	6.6	8.4	0.0
District of Columbia	100.0	0.0	0.0	0.0	0.0	100.0	100.0
Florida	100.0	100.0	93.7	93.9	92.0	20.5	10.2
Georgia	87.1	31.4	84.5	24.3	12.5	37.0	21.8
Hawaii	100.0	0.0	100.0	0.0	0.0	0.0	0.0
Idaho	93.5	20.4	59.4	20.6	7.4	15.5	13.4
Illinois	50.9	6.6	44.5	4.0	2.5	12.6	19.3
Indiana	88.6	40.3	46.8	19.2	11.6	23.3	0.8
Iowa	46.3	12.7	79.9	9.6	6.7	19.7	1.6
Kansas	98.0	16.0	86.3	6.9	3.8	31.0	7.6
Kentucky	100.0	90.8	22.8	17.9	13.0	3.9	6.5
Louisiana	95.8	98.9	96.8	95.5	94.7	81.0	3.4
Maine	100.0	58.3	39.0	20.8	27.2	60.6	17.9
Maryland	100.0	98.3	100.0	24.2	24.2	28.5	16.4
Massachusetts	98.2	45.1	45.2	21.2	23.2	27.5	23.6
Michigan	57.0	11.1	74.6	5.6	5.5	71.8	15.3
Minnesota	82.6	9.1	86.8	6.7	7.2	13.1	1.6
Mississippi	99.4	41.1	56.3	21.2	14.8	11.1	12.1
Missouri	37.9	15.0	79.2	12.4	6.8	16.1	12.8
Montana	100.0	23.4	54.2	11.7	6.7	23.1	10.6
Nebraska	85.3	20.5	84.8	13.6	11.6	26.9	6.4
Nevada	37.5	26.5	75.0	2.8	2.1	34.7	0.2
New Hampshire	97.7	11.4	24.6	8.1	4.0	96.8	21.8
New Jersey	98.6	69.5	79.7	18.1	19.5	27.1	12.3
New Mexico	100.0	96.6	94.0	8.2	10.2	11.7	15.2
New York	99.5	4.3	99.6	3.5	5.7	6.5	77.8
North Carolina	100.0	42.6	29.4	28.7	20.8	6.0	0.6
North Dakota	98.7	27.1	83.6	8.0	5.1	15.6	0.0
Ohio	62.3	14.8	47.7	8.7	6.0	12.6	6.4
Oklahoma	98.6	25.1	39.8	15.1	8.8	11.5	7.0
Oregon	80.6	5.8	63.1	2.9	2.9	10.8	18.4
Pennsylvania	98.0	95.3	95.9	92.1	92.0	20.2	8.7
Rhode Island	100.0	23.3	23.8	9.2	6.3	69.2	60.4
South Carolina	98.2	96.5	79.3	15.1	13.0	5.2	5.9
South Dakota	98.0	17.2	90.3	15.5	8.7	98.4	6.4
Tennessee	99.6	7.8	8.8	8.8	6.1	6.8	23.7
Texas	97.4	95.6	77.8	22.9	21.8	37.7	23.0
Utah	85.1	4.4	84.9	2.4	2.4	60.5	14.5
Vermont	94.2	69.5	83.5	55.2	38.0	5.4	10.5
Virginia	97.4	37.2	95.2	18.0	13.5	10.7	13.2
Washington	48.6	10.5	80.7	5.7	4.3	7.4	2.9
West Virginia	100.0	46.0	94.6	10.4	15.1	13.9	24.3
Wisconsin	94.4	13.4	91.9	9.4	6.9	35.1	6.1
Wyoming	61.6	22.1	73.8	13.2	9.3	12.1	6.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Demand and Shortage Questionnaire); and NCEE, *A Nation at Risk* (1983).

Table 24-6 Percentage of private high school students in schools with graduation requirements at or above the NCEE recommendations, by subject and private school type: 1990–91

Private school type	English (4 or more)	Math (3 or more)	Social studies (3 or more)	Science (3 or more)	Four core subjects (13 or more)	Computer science (0.5 or more)	Foreign language (2 or more)
Total	**94.0**	**65.8**	**77.6**	**40.7**	**42.2**	**47.8**	**63.7**
Catholic							
Parochial	88.9	50.0	70.1	33.9	38.4	53.7	49.8
Diocesan	98.4	60.0	86.2	45.4	41.5	38.6	52.7
Private order	94.9	69.2	74.1	35.3	43.1	53.4	84.6
Other religious							
Conservative Christian	98.6	64.0	85.3	40.9	42.4	53.1	47.8
Other religious affiliated	84.4	59.3	71.1	35.1	40.1	45.6	51.6
Other religious unaffiliated	92.0	65.6	79.4	48.7	48.9	50.3	62.9
Nonsectarian							
Nonsectarian regular	93.5	87.9	70.2	47.9	46.0	53.5	81.6
Nonsectarian special emphasis	80.6	80.5	64.1	35.1	37.8	38.0	78.9
Nonsectarian special education	97.8	58.7	86.7	32.3	31.6	53.9	14.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 (Teacher Demand and Shortage Questionnaire); and NCEE, *A Nation at Risk* (1983).

Table 24-7 Public districts' graduation requirements in four core subjects grouped into percentile ranges and ranked by median value, by state: 1990–91

State	Percentile				
	5th	25th	50th	75th	95th
Illinois	8.0	8.0	9.5	10.0	14.0
Minnesota	7.0	8.0	10.0	11.0	12.0
Missouri	9.0	9.5	10.0	11.0	13.0
North Carolina	10.0	10.0	10.0	11.0	13.0
Ohio	8.0	9.0	10.0	11.0	13.0
Rhode Island	9.0	10.0	10.0	11.0	13.0
Tennessee	9.0	9.5	10.0	10.0	12.0
Oklahoma	9.0	10.0	10.3	11.0	13.0
Michigan	7.0	10.0	10.5	11.0	13.0
New Hampshire	9.0	10.3	10.5	11.0	12.0
Alabama	10.0	11.0	11.0	12.0	14.0
Alaska	9.0	11.0	11.0	12.0	13.0
Colorado	9.0	11.0	11.0	13.0	14.0
Delaware	1.1	11.0	11.0	12.0	15.0
Georgia	10.0	11.0	11.0	12.0	15.0
Idaho	10.0	10.5	11.0	12.0	14.0
Indiana	10.0	10.0	11.0	12.0	14.0
Iowa	8.0	10.0	11.0	12.0	13.5
Kansas	10.0	11.0	11.0	11.0	13.0
Kentucky	10.0	11.0	11.0	12.0	13.0
Maine	8.0	10.0	11.0	12.0	14.0
Massachusetts	8.5	10.0	11.0	13.0	14.0
Mississippi	10.0	10.5	11.0	12.0	14.0
Montana	10.0	10.0	11.0	12.0	13.0
Nevada	9.0	10.0	11.0	12.0	13.0
North Dakota	10.5	11.0	11.0	12.0	13.0
Oregon	9.5	11.0	11.0	12.0	13.0
South Dakota	10.0	11.0	11.0	12.0	14.0
Utah	9.0	10.0	11.0	11.0	13.5
Washington	8.5	10.5	11.0	12.0	13.5
Wisconsin	10.0	11.0	11.0	11.5	13.0
Wyoming	7.0	10.3	11.0	12.0	13.0
Arizona	10.0	11.0	11.5	12.0	13.5
California	9.4	10.5	11.5	12.0	14.0
Nebraska	10.0	11.0	11.5	12.0	13.0
Arkansas	10.0	11.0	12.0	13.0	14.0
Connecticut	12.0	12.0	12.0	13.0	14.0
Maryland	12.0	12.0	12.0	12.0	13.0
New Jersey	9.0	10.5	12.0	12.0	13.0
New Mexico	10.0	12.0	12.0	13.0	13.5
New York	11.0	12.0	12.0	12.0	14.0
South Carolina	10.0	12.0	12.0	12.0	14.0
Texas	11.0	12.0	12.0	13.0	13.0
Vermont	10.0	12.0	12.0	13.0	13.0
Virginia	7.0	11.0	12.0	12.0	13.0
West Virginia	11.0	11.0	12.0	12.0	13.0
Florida	11.0	13.0	13.0	13.0	14.0
Louisiana	10.0	13.0	13.0	13.0	13.0
Pennsylvania	10.0	13.0	13.0	14.0	15.0

NOTE: Hawaii and the District of Columbia each have only one school district and therefore are excluded from this table. Estimates were weighted by district enrollment in grades 9 to 12.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Demand and Shortage Questionnaire).

Table 24-8 Private schools' graduation requirements in four core subjects grouped into percentile ranges, by private school: 1990–91

Private school type	Percentile 5th	25th	50th	75th	95th
Catholic					
Parochial	10.0	10.0	12.0	13.0	15.0
Diocesan	10.0	11.8	12.0	13.0	14.0
Private order	10.0	11.0	12.0	13.5	16.0
Other religious Conservative					
Christian	10.5	12.0	13.0	14.0	15.0
Other religious affiliated	10.0	12.0	13.0	14.0	16.0
Other religious unaffiliated	10.0	12.0	13.0	14.0	16.0
Nonsectarian					
Regular	10.0	12.0	13.0	14.0	16.0
Special emphasis	8.0	10.0	12.0	14.0	16.0
Special education	9.0	12.0	12.0	13.0	16.0

NOTE: Averages are weighted by enrollment in grades 9 to 12. Estimates vary somewhat from those in other publications that weight by the number of schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Demand and Shortage Questionnaire).

Table 24-9 Summary of state high school graduation requirements, by subject: High school class of 1991

State	Abbreviation	English	Mathematics	Social Science	Science	Four core subjects	Computer science	Foreign language
Alabama	AL	4	2	3	2	11	0	0
Alaska	AK	4	2	3	2	11	0	0
Arizona	AZ	4	2	3	2	11	0	0
Arkansas	AR	4	3	3	2	12	0	0
California	CA	3	2	3	2	10	0	[1]0
Colorado	CO[2]	0	0	0	0	0	0	0
Connecticut	CT	4	3	3	2	12	0	0
Delaware	DE	4	2	3	2	11	0	0
District of Columbia	DC	4	2	2	2	10	0	1
Florida	FL	4	3	3	3	13	0	0
Georgia	GA	4	2	3	2	11	0	0
Hawaii	HI	4	2	4	2	12	0	0
Idaho	ID	4	2	2	2	10	0	0
Illinois	IL	3	[3]2	2	1	6	[3]0	0
Indiana	IN	4	2	2	2	10	0	0
Iowa	IA[4]	0	0	0	0	0	0	0
Kansas	KS	4	2	3	2	11	0	0
Kentucky	KY	4	[5]3	[5]2	[5]2	4	0	0
Louisiana	LA	4	3	3	3	13	1	0
Maine	ME	4	2	2	2	10	[6]0	0
Maryland	MD	4	3	3	2	12	0	0
Massachusetts	MA	0	0	1	0	1	0	0
Michigan	MI	0	0	1	0	1	0	0
Minnesota	MN	4	1	3	1	9	0	0
Mississippi	MS	4	2	2	2	10	0	0
Missouri	MO	3	2	2	2	9	0	0
Montana	MT	4	2	2	1	9	0	0
Nebraska	NE[7]	0	0	0	0	0	0	0
Nevada	NV	3	2	2	1	8	1	0
New Hampshire	NH	4	2	3	2	11	1	0
New Jersey	NJ	[8]4	2	2	1	5	0	0
New Mexico	NM	4	3	3	2	12	[9]0	0
New York	NY	4	2	4	2	12	0	0
North Carolina	NC	4	2	2	2	10	0	0
North Dakota	ND	[10]4	[10]2	3	2	5	0	[10]0
Ohio	OH	3	2	2	1	8	0	0
Oklahoma	OK	4	2	2	2	10	0	0
Oregon	OR	3	2	4	2	11	0	0
Pennsylvania	PA	4	3	3	3	13	[11]0	0
Rhode Island	RI	4	2	2	2	10	0	0
South Carolina	SC	4	[12]3	3	[12]2	7	[12]0	0
South Dakota	SD	4	2	3	3	12	1	0
Tennessee	TN	4	2	1	2	9	0	0
Texas	TX	4	3	3	2	12	0	0
Utah	UT	3	2	3	2	10	[13]0	0

Table 24-9 Summary of state high school graduation requirements, by subject: High school class of 1991—Continued

State	Abbreviation	English	Mathematics	Social Science	Science	Four core subjects	Computer science	Foreign language
Vermont	VT	4	[14]3	3	[14]2	12	0	0
Virginia	VA	4	[15]2	3	[15]2	7	0	0
Washington	WA	3	2	3	2	10	0	0
West Virginia	WV	4	2	3	2	11	0	[16]0
Wisconsin	WI	4	2	3	2	11	0	0
Wyoming[17]	WY	0	0	1	0	1	0	0

[1] CA: One year of either foreign language or fine arts is required.

[2] CO: There are no state course-specific requirements, but for schools to be accredited, they must require 30 units among the core subjects and other specified subjects.

[3] IL: Computer technology can be substituted for 1 unit of mathematics.

[4] IA: In 1991 the only state-mandated requirement was physical education for every year in attendance.

[5] KY: One additional year of mathematics, science, social science, or vocational education is required.

[6] ME: Students must pass a computer proficiency test, but no specific coursework is required.

[7] NE: State sets requirements for total core courses as a group, but local boards set subject-specific requirements.

[8] NJ: Note that English must be taken during every year enrolled; therefore 4 years are required for those who finish high school in the normal 4 years, but different requirements apply for early or late graduates.

[9] NM: Students must demonstrate computer proficiency, but no specific coursework is required.

[10] ND: Fourth year of English may be replaced by upper-level foreign language; 1 year of mathematics may be business mathematics.

[11] PA: Computer science can be substituted for arts/humanities requirement.

[12] SC: One unit of computer science counts toward the mathematics requirement; science requirement can be met with 1 year of science plus 6 units in a specific occupational area.

[13] UT: Computer literacy must be demonstrated, but no specific coursework is required.

[14] VT: Five years total for mathematics and science are required (2+3 or 3+2).

[15] VA: One additional unit of mathematics or science is required, but this can be met with a vocational education class or ROTC.

[16] WV: One year of electives must be foreign language or applied/fine arts.

[17] WY: In 1991, the state required only 1 year of social studies. New accreditation standards that will apply in 1997 require public high schools to require 4 years of English, 3 years of social studies, 2 years of mathematics, and 2 years of science.

NOTE: Elective requirements may encourage course taking in computer science or foreign language, but allow substitution with some other course. Such flexible requirements are not counted in these categories because they are not absolute. Additional and/or higher requirements were set for advanced/scholars' diplomas in many states.

SOURCE: Education Commission of the States, *Clearinghouse Notes*, 1993.

Supplemental note on high school graduation requirements

"Linguistically isolated" refers to households in which no members over age 13 speak English "very well," and all members over age 13 speak a language besides English.

The percentage of a district's residents who had not completed high school applies only to adults 20 years old and older.

District per-pupil spending figures reflect only current annual operating expenditures, excluding capital and other unusual expenditures.

The NCEE recommended in *A Nation at Risk* that students be required to complete 4 years of English; 3 years each of math, science, and social studies; and one-half year of computer science. In addition, for college-bound students, the Commission recommended 2 years of high school-level foreign language (not counting any foreign language study from earlier grades).

Table 25-1 Percentage of high school graduates taking 4 units in English, 3 units in social studies, 3 units in science, 3 units in math, and 0.5 units in computer science,* by student and school characteristics: 1982, 1987, 1990, and 1992

					Percentage point change			
Characteristic	1982	1987	1990	1992	1982–1987	1987–1990	1990–1992	1982–1992
Total	**2.1**	**16.3**	**22.7**	**29.4**	**14.2**	**6.4**	**6.7**	**27.2**
Sex								
Male	2.9	18.4	23.9	28.1	15.4	5.5	4.3	25.2
Female	1.4	14.4	21.6	30.6	13.0	7.2	9.0	29.2
Race/ethnicity								
White	2.5	17.2	22.7	29.6	14.8	5.5	6.9	27.1
Black	1.1	11.7	25.1	27.6	10.6	13.3	2.5	26.5
Hispanic	0.7	8.6	20.3	28.7	7.9	11.7	8.4	28.0
Asian/Pacific Islander	6.0	28.1	27.8	32.2	22.1	-0.3	4.5	26.3
American Indian/Alaskan Native	0.6	—	—	22.1	—	—	—	21.5
Urbanicity (1982,1992)								
Urban	1.7	—	—	32.7	—	—	—	31.0
Suburban	2.7	—	—	27.3	—	—	—	24.7
Rural	1.5	—	—	29.3	—	—	—	27.8
Urbanicity (1987,1990)								
Big city	—	13.2	22.9	—	—	9.7	—	—
Urban fringe	—	18.7	22.9	—	—	4.2	—	—
Medium city	—	13.7	21.6	—	—	7.9	—	—
Small place	—	16.6	22.7	—	—	6.1	—	—
Control of school								
Public	2.1	15.5	22.4	28.7	13.5	6.9	6.3	26.6
Private	1.1	23.5	25.4	36.0	22.5	1.9	10.6	34.9
Parents' highest education level								
Didn't finish high school	1.2	—	—	32.2	—	—	—	31.0
High school graduate	1.2	—	—	28.1	—	—	—	26.9
Some college	2.8	—	—	28.8	—	—	—	26.0
College graduate	4.2	—	—	29.6	—	—	—	25.4

— Not available.

* This course of study was recommended in *A Nation at Risk* for all high school graduates.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The 1990 High School Transcript Study Tabulations*, 1993 (based on the High School and Beyond Transcript Study and the 1987 and 1990 NAEP High School Transcript Studies), and the National Education Longitudinal Study Transcripts, 1992.

Table 25-2 **Percentage of high school graduates taking 4 units in English, 3 units in social studies, 3 units in science, 3 units in math, 0.5 units in computer science, and 2 units in foreign language,* by student and school characteristics: 1982, 1987, 1990, and 1992**

					Percentage point change			
Characteristic	1982	1987	1990	1992	1982-1987	1987-1990	1990-1992	1982-1992
Total	**1.6**	**12.0**	**17.3**	**23.3**	**10.4**	**5.2**	**6.0**	**21.7**
Sex								
Male	2.0	13.3	17.7	21.0	11.2	4.4	3.3	19.0
Female	1.2	10.9	16.9	25.5	9.7	6.0	8.7	24.3
Race/ethnicity								
White	1.9	12.7	18.1	23.7	10.8	5.3	5.6	21.8
Black	0.7	8.3	14.4	21.9	7.6	6.1	7.6	21.2
Hispanic	0.3	5.5	15.7	20.0	5.2	10.2	4.3	19.7
Asian/Pacific Islander	5.2	24.3	23.8	29.4	19.1	-0.5	5.6	24.2
American Indian/Alaskan Native	0.6	—	—	11.4	—	—	—	10.8
Urbanicity (1982, 1992)								
Urban	1.3	—	—	26.5	—	—	—	25.2
Suburban	2.0	—	—	23.4	—	—	—	21.4
Rural	1.3	—	—	20.6	—	—	—	19.3
Urbanicity (1987, 1990)								
Big city	—	10.9	19.0	—	—	8.1	—	—
Urban fringe	—	15.4	19.3	—	—	3.9	—	—
Medium city	—	10.6	18.2	—	—	7.6	—	—
Small place	—	10.7	15.5	—	—	4.8	—	—
Control of school								
Public	1.5	11.4	16.9	22.4	9.9	5.5	5.6	21.0
Private	1.3	18.3	21.8	31.5	17.0	3.5	9.7	30.2
Parents' highest education level								
Didn't finish high school	1.0	—	—	25.0	—	—	—	24.0
High school graduate	1.2	—	—	22.1	—	—	—	20.9
Some college	2.1	—	—	22.9	—	—	—	20.8
College graduate	3.4	—	—	23.5	—	—	—	20.1

— Not available.

* This course of study was recommended in *A Nation at Risk* for high school students planning to attend college.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The 1990 High School Transcript Study Tabulations*, 1993 (based on the High School and Beyond Transcript Study and the 1987 and 1990 NAEP High School Transcript Studies), and the National Education Longitudinal Study Transcripts, 1992.

Note on High School Transcript Studies

Indicators 25 and *26* contain data from high school transcript studies conducted by the National Center for Education Statistics (NCES). Average course credits, or Carnegie units, for high school graduates are from the following studies: 1992 data are from the 1988 National Education Longitudinal Study (NELS:88) Second Follow-up High School Transcript Study; 1987 and 1990 data are from the 1987 and 1990 National Assessment of Educational Progress (NAEP) High School Transcript Studies; and 1982 data are from the High School and Beyond (HS&B) Transcript Study. A brief description of these studies, including descriptions of the sampled populations, follows.

The 1988 NELS Second Follow-up High School Transcript Study is a major longitudinal study sponsored by NCES. Transcripts were collected for 17,281 students selected to be in the second follow-up study. From this sample, a subsample was created that is nationally representative of 1992 high school graduates.

The 1990 NAEP High School Transcript Study was conducted using methodology and techniques nearly identical to those used in the 1987 NAEP High School Transcript Study. In the spring of 1991, transcripts were collected from 21,607 students who graduated from high school in 1990. These students attended 330 schools that had previously been sampled for the NAEP. The sample of schools was a nationally representative sample of schools teaching grade 12 or having 17-year-old students. The sample was also a representative sample of graduating seniors from each school.

Since the focus of the 1990 Transcript Study was high school graduates, schools with 17-year-olds but without 12th grade were not included in the subsample used in these analyses. Of the remaining schools, only those students who graduated were selected.

The sample of schools for the 1987 High School Transcript Study consisted of a nationally representative sample of 471 secondary schools selected for the 1986 NAEP for grade 11, age 17 students, of which 433 schools participated. The 1987 study was restricted to students who were in grade 11 in 1985–86. Data for 1987 and 1990 in *Indicators 25* and *26* are from the NCES publication *The 1990 High School Transcript Study Tabulations*.

High School and Beyond (HS&B) is a survey of high school sophomores and seniors. In 1982, high school transcripts were collected for members of the sophomore cohort who were selected to be in the second follow-up survey (about 12,000 transcripts). As in the 1987 and 1990 High School Transcript Studies, records were obtained from all types of high schools. However, because the 1982 HS&B used a different method of identifying handicapped students than the 1987 and 1990 High School Transcript Studies, students who had participated in a special education program were excluded from the tabulations in order to make the figures consistent. To better match the selection rules used to create the NELS Transcripts subsample, the 1982 HS&B data in *Indicators 25* and *26* are based on original runs and differ slightly from data published in *The 1990 High School Transcript Study Tabulations*.

Each of the transcript studies used the taxonomy of Classification of Secondary School Courses (CSSC), which contains approximately 1,800 course codes used to define course content and level. These studies also included additional course and student information, such as grade and credit received, grade level, graduation status, age, gender, and race/ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The 1990 High School Transcript Study Tabulations*, 1992.

Table 26-1 Percentage of high school graduates taking selected mathematics and science courses, by sex: 1982, 1987, 1990, and 1992

Mathematics and science courses (credits)	1982			1987			1990			1992		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Mathematics												
Any mathematics (1.00)	99.0	99.4	98.7	99.4	99.3	99.4	99.6	99.4	99.7	99.6	99.3	99.9
Remedial/below grade level math (1.00)	32.5	35.9	29.5	24.9	26.7	23.2	23.6	25.7	21.7	17.4	19.5	15.4
Algebra I (1.00)	[1]80.2	[1]77.9	[1]82.2	—	—	—	—	—	—	[1]93.2	[1]92.5	[1]93.9
Algebra II (0.50)	36.9	37.5	36.3	47.1	45.8	48.4	49.2	47.8	50.5	56.1	54.0	58.1
Geometry (1.00)	48.4	48.3	48.5	61.5	61.2	61.7	64.7	63.9	65.4	70.4	69.0	71.7
Trigonometry (0.50)	12.2	13.3	11.2	19.0	20.3	17.8	18.4	18.4	18.3	21.1	21.4	20.8
Analysis/pre-calculus (0.5)	5.8	6.1	5.5	12.8	14.0	11.6	13.5	14.3	12.9	17.2	16.8	17.6
Calculus (1.00)	4.3	4.7	4.0	6.2	7.7	4.7	6.6	7.7	5.6	10.1	10.3	9.8
AP calculus (1.00)	1.4	1.4	1.4	3.4	4.0	2.8	4.2	5.1	3.4	5.5	5.7	5.4
Algebra II and geometry (1.50)	29.1	30.1	28.2	42.4	41.5	43.3	44.0	43.0	45.0	50.1	48.6	51.6
Algebra II, geometry, and trigonometry (2.00)	7.4	8.5	6.3	14.7	15.2	14.1	12.5	12.7	12.4	14.5	14.7	14.4
Algebra II, geometry, trigonometry, and calculus (3.00)	0.8	1.1	0.5	2.4	2.9	1.9	2.2	2.5	1.8	2.7	2.6	2.8
Science												
Any science (1.00)	97.6	97.5	97.7	98.7	98.4	99.0	99.4	99.2	99.7	99.6	99.5	99.7
Biology (1.00)	78.7	76.5	80.6	88.3	87.0	89.7	91.6	90.4	92.7	93.0	91.9	94.2
AP/honors biology (1.00)	6.7	6.2	7.2	2.8	2.8	2.7	5.0	4.5	5.4	5.7	5.8	5.7
Chemistry (1.00)	31.6	32.4	30.9	44.8	45.9	43.7	49.6	48.8	50.4	55.5	54.2	56.8
AP/honors chemistry (1.00)	2.6	3.1	2.1	3.4	4.0	2.8	3.5	4.2	2.9	4.0	4.3	3.7
Physics (1.00)	13.5	17.9	9.4	19.5	24.6	14.8	21.5	25.5	17.8	24.7	28.2	21.4
AP/honors physics (1.00)	0.9	1.2	0.5	1.7	2.5	0.9	2.1	2.6	1.6	2.9	4.0	1.9
Engineering (1.00)	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	[2]0.0	0.3	0.4	0.3
Astronomy (0.50)	0.2	0.3	0.1	1.0	1.1	0.8	1.3	1.5	1.1	0.7	0.9	0.6
Geology (0.50)	11.4	12.7	10.2	14.9	15.6	14.1	25.3	26.2	24.5	18.4	18.8	18.0
Biology and chemistry (2.00)	28.6	28.4	28.9	43.0	43.7	42.3	48.2	47.2	49.1	53.9	52.2	55.6
Biology, chemistry, and physics (3.00)	9.8	12.5	7.4	16.8	20.8	12.9	18.9	22.1	16.0	21.6	24.4	18.9

— Not available.

[1] Algebra I was revised from previously published figures to include those students who had taken Algebra I, or its equivalent, before entering high school.

[2] Percent is less than 0.05 and is rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The 1990 High School Transcript Study Tabulations*, 1993 (based on the High School and Beyond Transcript Study and the 1987 and 1990 NAEP High School Transcript Studies), and the National Education Longitudinal Study Transcripts, 1992.

Table 26-2 Percentage of high school graduates taking selected mathematics and science courses, by race/ethnicity: 1982, 1987, 1990, and 1992

Mathematics and science courses (credits)	1982					1987				
	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native
Mathematics										
Any mathematics (1.00)	99.1	99.6	98.6	100.0	96.6	99.3	99.5	99.4	100.0	99.4
Remedial/below grade level math (1.00)	27.0	54.4	48.5	18.8	52.6	20.6	46.5	42.5	16.3	40.7
Algebra I (1.00)	*84.0	*68.4	*66.8	*93.4	*59.0	—	—	—	—	—
Algebra II (0.50)	40.5	26.2	22.5	55.0	20.0	51.9	32.4	30.2	67.2	28.5
Geometry (1.00)	53.9	30.3	29.0	64.3	26.3	65.1	44.0	40.2	81.4	48.4
Trigonometry (0.50)	13.8	6.3	6.8	25.7	7.7	20.9	10.9	9.9	42.1	6.5
Analysis/pre-calculus (0.50)	6.7	2.1	3.0	15.1	0.7	13.5	5.1	7.4	39.6	7.5
Calculus (1.00)	5.0	1.4	1.6	13.1	1.2	5.9	2.3	3.6	29.8	3.2
AP calculus (1.0)	1.7	0.3	0.3	5.9	0.0	2.8	1.4	2.6	24.0	1.3
Algebra II and geometry (1.50)	33.0	17.0	14.4	40.3	13.6	47.0	28.6	24.3	62.4	23.5
Algebra II, geometry, and trigonometry (2.00)	8.5	2.9	4.2	12.9	3.1	16.9	8.0	7.4	31.1	3.5
Algebra II, geometry, trigonometry, and calculus (3.00)	0.9	0.2	0.5	2.0	0.0	2.3	1.2	2.2	14.5	1.0
Science										
Any science (1.00)	97.7	98.6	95.9	97.1	98.4	98.7	98.7	98.5	99.4	98.6
Biology (1.00)	80.1	75.3	73.2	83.5	65.5	89.2	86.2	85.4	91.5	88.8
AP/honors biology (1.00)	7.5	4.5	3.5	13.1	5.1	2.8	1.5	1.6	4.3	0.9
Chemistry (1.00)	34.7	22.5	16.7	51.9	34.1	47.7	29.8	29.4	69.9	30.1
AP/honors chemistry (1.00)	2.9	1.6	1.3	5.8	0.9	3.5	1.2	2.3	13.9	0.8
Physics (1.00)	15.3	6.8	5.5	35.8	6.9	20.9	10.1	9.8	47.1	11.5
AP/honors physics (1.00)	0.9	0.8	0.4	3.5	0.0	1.7	0.4	0.8	5.7	1.8
Engineering (1.00)	0.2	0.2	0.1	0.0	0.0	0.1	0.4	0.1	0.4	0.0
Astronomy (0.50)	0.2	0.2	0.3	0.0	0.0	0.9	0.3	0.8	0.7	0.7
Geology (0.50)	12.0	8.7	9.6	7.9	9.1	14.4	18.8	11.8	13.3	13.4
Biology and chemistry (2.00)	31.6	20.2	15.2	47.2	19.1	46.0	28.6	28.2	66.0	27.8
Biology, chemistry, and physics (3.00)	11.2	4.7	3.7	28.6	4.7	17.9	8.8	8.2	42.4	8.4

Mathematics and science courses (credits)	1990					1992				
	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native
Mathematics										
Any mathematics (1.00)	99.7	98.7	99.8	99.9	100.0	99.7	99.1	99.8	100.0	100.0
Remedial/below grade level math (1.00)	20.0	35.4	38.3	19.9	37.7	14.6	30.9	24.2	14.5	35.2
Algebra I (1.00)	—	—	—	—	—	*94.0	*89.0	*92.5	*93.9	*87.3
Algebra II (0.50)	52.4	39.0	38.6	59.5	47.3	59.2	40.9	46.9	60.8	42.1
Geometry (1.00)	67.2	56.3	54.4	72.1	54.5	72.6	60.4	62.9	77.1	53.6
Trigonometry (0.50)	19.6	14.1	11.0	35.2	15.6	22.5	13.0	15.2	31.3	10.0
Analysis/pre-calculus (0.50)	15.0	6.2	7.3	25.5	8.5	17.9	12.6	10.6	33.9	3.0
Calculus (1.00)	7.0	2.8	3.9	18.6	6.1	10.7	6.9	4.7	20.1	1.4
AP calculus (1.00)	4.3	1.2	3.0	15.6	4.2	5.8	2.5	2.2	16.1	1.3
Algebra II and geometry (1.50)	47.2	32.9	34.5	53.2	37.8	53.1	35.0	41.9	55.5	35.7
Algebra II, geometry, and trigonometry (2.00)	13.6	8.1	8.6	21.5	10.3	15.9	6.8	10.9	18.2	5.9
Algebra II, geometry, trigonometry, and calculus (3.00)	2.3	1.1	1.5	6.5	3.2	3.0	0.9	1.2	5.4	0.6
Science										
Any science (1.00)	99.5	99.0	99.3	99.8	99.5	99.5	100.0	99.7	100.0	100.0
Biology (1.00)	92.0	91.0	90.3	90.5	91.1	93.5	92.2	91.2	93.4	84.5
AP/honors biology (1.00)	5.1	3.8	2.4	6.4	3.2	6.5	3.2	2.4	6.8	5.0
Chemistry (1.00)	52.3	40.3	38.8	64.1	38.6	58.0	45.9	42.6	67.4	32.9
AP/honors chemistry (1.00)	3.8	2.5	1.2	7.7	4.8	4.2	2.3	2.5	9.1	1.8
Physics (1.00)	23.1	14.5	13.0	38.4	18.9	25.9	17.6	15.7	41.6	13.3
AP/honors physics (1.00)	2.1	0.7	1.0	5.9	2.7	2.9	1.4	2.4	9.2	0.6
Engineering (1.00)	0.1	0.1	0.0	0.0	0.0	0.3	0.2	0.1	0.5	0.0
Astronomy (0.50)	1.4	0.4	1.1	0.7	2.2	1.0	0.1	0.1	0.1	0.0
Geology (0.50)	28.3	15.8	14.2	15.6	30.6	19.3	17.6	11.5	16.6	29.7
Biology and chemistry (2.00)	50.9	39.6	36.8	60.5	37.6	56.5	44.2	40.5	65.4	31.2
Biology, chemistry, and physics (3.00)	20.7	12.1	10.2	33.8	16.0	22.6	15.5	12.8	38.2	10.8

— Not available.

* Algebra I was revised from previously published figures to include those students who had taken Algebra I, or its equivalent, before entering high school.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The 1990 High School Transcript Study Tabulations,* 1993 (based on the High School and Beyond Transcript Study and the 1987 and 1990 NAEP High School Transcript Studies), and the National Education Longitudinal Study Transcripts, 1992.

Table 26-3 Percentage of high school graduates taking selected mathematics and science courses, by control of school: 1982, 1987, 1990, and 1992

Mathematics and science courses (credits)	1982[1]		1987		1990		1992	
	Public	Private	Public	Private	Public	Private	Public	Private
Mathematics								
Any mathematics (1.00)	98.9	99.9	99.3	99.9	99.5	99.8	99.6	100.0
Remedial/below grade level math (1.00)	34.5	17.0	26.8	7.1	25.0	9.8	18.3	9.4
Algebra I (1.00)	[2]78.3	[2]95.3	—	—	—	—	[2]92.5	[2]99.9
Algebra II (0.50)	34.9	52.5	45.0	67.5	47.8	63.1	54.5	71.2
Geometry (1.00)	44.9	76.0	58.9	85.8	62.5	85.5	68.6	86.6
Trigonometry (0.50)	11.1	20.9	18.0	28.4	17.5	27.3	19.5	36.2
Analysis/pre-calculus (0.50)	5.1	11.6	11.7	23.4	12.3	25.4	15.1	37.2
Calculus (1.00)	3.6	10.2	5.7	11.1	6.3	9.7	8.8	21.3
AP calculus (1.00)	1.2	3.0	3.2	5.6	3.9	7.1	5.2	8.7
Algebra II and geometry (1.50)	26.7	47.5	40.2	63.4	42.5	58.6	48.7	62.9
Algebra II, geometry, and trigonometry (2.00)	6.9	11.1	14.2	19.0	12.4	14.1	13.8	21.4
Algebra II, geometry, trigonometry, and calculus (3.00)	0.7	1.6	2.5	1.6	2.3	1.0	2.8	1.4
Science								
Any science (1.00)	97.4	99.1	98.6	99.9	99.4	99.9	99.5	100.0
Biology (1.00)	77.1	91.4	87.5	96.4	91.1	97.0	92.5	97.7
AP/honors biology (1.00)	6.6	7.7	2.2	8.1	5.1	3.9	4.9	13.8
Chemistry (1.00)	29.6	47.5	42.0	70.9	47.9	67.0	53.1	78.6
AP/honors chemistry (1.00)	2.5	3.5	3.2	5.0	3.7	2.1	4.0	3.9
Physics (1.00)	12.7	19.4	18.5	29.2	20.4	31.6	22.4	46.3
AP/honors physics (1.00)	0.8	1.3	1.4	4.7	1.9	3.2	2.6	5.7
Engineering (1.00)	0.2	0.1	0.1	[3]0.0	0.1	0.1	0.3	[3]0.0
Astronomy (0.50)	0.3	[3]0.0	1.1	0.3	1.3	0.7	0.8	0.7
Geology (0.50)	12.0	6.9	15.2	11.6	25.6	22.1	19.1	11.3
Biology and chemistry (2.00)	26.5	44.9	40.2	69.3	46.5	65.3	51.4	77.3
Biology, chemistry, and physics (3.00)	9.1	15.3	15.9	25.2	17.9	28.3	19.3	43.4

— Not available.

[1] Revised from previously published figures.

[2] Algebra I was revised from previously published figures to include those students who had taken Algebra I, or its equivalent, before entering high school.

[3] Percent is less than 0.05 and is rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The 1990 High School Transcript Study Tabulations*, 1993 (based on the High School and Beyond Transcript Study and the 1987 and 1990 NAEP High School Transcript Studies), and the National Education Longitudinal Study Transcripts, 1992.

Table 26-4 Percentage of high school graduates taking selected mathematics and science courses, by urbanicity: 1982 and 1992

Mathematics and science courses (credits)	1982			1992		
	Urban	Suburban	Rural	Urban	Suburban	Rural
Mathematics						
Any mathematics (1.00)	98.6	99.2	99.0	99.7	99.5	99.8
Remedial/below grade level math (1.00)	36.1	29.1	35.8	17.8	15.8	19.3
Algebra I (1.00)	*80.2	*83.1	*75.5	*94.7	*93.8	*91.1
Algebra II (0.50)	36.2	38.8	34.2	56.7	56.0	55.7
Geometry (1.00)	47.0	52.7	42.6	74.9	72.6	63.6
Trigonometry (0.50)	11.8	14.8	8.5	24.5	21.5	17.7
Analysis/pre-calculus (0.50)	4.7	7.3	4.1	22.4	18.1	11.8
Calculus (1.00)	3.5	5.2	3.4	10.8	11.6	7.3
AP calculus (1.00)	1.0	1.9	0.9	7.3	6.1	3.2
Algebra II and geometry (1.50)	27.6	31.6	26.0	51.9	50.5	48.1
Algebra II, geometry, and trigonometry (2.00)	6.9	8.6	5.8	15.5	14.0	14.4
Algebra II, geometry, trigonometry, and calculus (3.00)	0.3	1.0	0.7	1.9	2.7	3.3
Science						
Any science (1.00)	97.7	97.2	98.0	99.4	99.8	99.4
Biology (1.00)	78.2	78.6	79.1	92.7	92.6	93.8
AP/honors biology (1.00)	5.2	7.5	6.4	5.3	6.8	4.7
Chemistry (1.00)	28.5	34.1	29.6	60.0	58.3	48.0
AP/honors chemistry (1.00)	2.9	2.8	2.1	4.7	3.7	3.9
Physics (1.00)	13.5	14.6	11.6	28.8	25.0	20.9
AP/honors physics (1.00)	0.9	1.1	0.6	3.9	3.3	1.7
Engineering (1.00)	0.1	0.2	0.2	0.2	0.4	0.3
Astronomy (0.50)	0.3	0.3	0.0	0.6	0.4	1.4
Geology (0.50)	11.1	12.0	10.6	15.6	21.7	16.2
Biology and chemistry (2.00)	26.1	30.8	26.7	58.7	56.3	46.7
Biology, chemistry, and physics (3.00)	9.7	10.5	8.8	26.2	21.9	17.3

* Algebra I was revised from previously published figures to include those students who had taken Algebra I, or its equivalent, before entering high school.

NOTE: The 1987 and 1990 NAEP High School Transcript Studies definition of urbanicity is not comparable to the definitions in the 1982 High School and Beyond Transcript Study and the 1992 National Education Longitudinal Study Transcripts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1982 High School and Beyond Transcript Study, and the National Education Longitudinal Study Transcripts, 1992.

Table 26-5 Percentage of high school graduates taking selected mathematics and science courses, by parents' highest level of education: 1982 and 1992

Mathematics and science courses (credits)	1982				1992			
	Didn't finish high school	High school graduate	Some college	College graduate	Didn't finish high school	High school graduate	Some college	College graduate
Mathematics								
Any mathematics (1.00)	98.6	100.0	99.3	99.5	99.8	99.6	99.6	99.6
Remedial/below grade math (1.00)	38.6	34.3	26.5	17.2	19.9	17.2	16.3	17.8
Algebra I (1.00)	[1]74.7	[1]76.4	[1]86.2	[1]91.3	[1]85.4	[1]88.8	[1]93.8	[1]98.4
Algebra II (0.50)	28.1	33.4	44.1	53.1	52.1	55.2	55.8	58.6
Geometry (1.00)	38.9	47.2	56.7	69.1	68.2	69.3	69.8	72.7
Trigonometry (0.50)	7.8	13.0	16.0	20.3	20.1	20.6	21.4	21.9
Analysis/pre-calculus (0.50)	3.2	5.4	7.4	12.5	19.1	15.4	16.0	18.9
Calculus (1.00)	2.1	1.8	5.7	8.0	9.9	9.4	9.7	10.5
AP calculus (1.00)	0.8	0.2	1.9	2.9	7.1	4.9	5.5	5.3
Algebra II and geometry (1.50)	21.0	26.2	35.5	45.1	47.0	49.0	49.8	52.3
Algebra II, geometry, and trigonometry (2.00)	4.0	8.7	10.0	12.3	13.7	14.0	14.7	15.3
Algebra II, geometry, trigonometry, and calculus (3.00)	0.3	0.0	1.3	0.7	2.5	3.0	3.0	2.2
Science								
Any science (1.00)	96.3	98.7	98.5	99.3	99.1	99.7	99.9	99.4
Biology (1.00)	76.1	73.6	82.0	87.0	91.7	93.6	92.5	93.6
AP/honors biology (1.00)	5.4	7.6	7.7	9.3	5.3	6.4	4.3	7.3
Chemistry (1.00)	22.0	25.7	38.2	52.1	53.1	54.3	55.1	57.7
AP/honors chemistry (1.00)	1.8	1.5	2.7	5.6	3.2	3.7	4.7	3.7
Physics (1.00)	8.2	13.1	16.9	23.5	23.4	23.9	23.7	26.7
AP/honors physics (1.00)	0.5	0.4	1.0	1.8	1.7	2.6	3.3	3.2
Engineering (1.00)	[2]0.0	0.0	0.2	0.1	0.3	0.4	0.4	0.2
Astronomy (0.50)	0.1	0.0	0.3	0.2	1.6	1.0	0.6	0.5
Geology (0.50)	12.6	9.7	10.4	10.9	16.0	20.4	18.5	17.6
Biology and chemistry (2.00)	20.1	24.1	34.4	48.0	50.9	53.1	53.6	56.1
Biology, chemistry, and physics (3.00)	5.5	8.0	13.0	17.9	20.5	21.0	21.1	22.7

[1] Algebra I was revised from previously published figures to include those students who had taken Algebra I, or its equivalent, before entering high school.

[2] Percent is less than 0.05 and is rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1982 High School and Beyond Transcript Study, and the National Education Longitudinal Study Transcripts, 1992.

Table 27-1 Female field concentration ratio[1] at the master's degree level, by field of study: Academic years ending 1971–92[2]

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Humanities	1.58	1.52	1.45	1.34	1.32	1.24	1.17	1.16	1.12	1.08	1.03
Social and behavioral sciences	0.69	0.69	0.68	0.67	0.69	0.73	0.76	0.77	0.84	0.88	0.91
Natural sciences	0.48	0.48	0.44	0.43	0.41	0.41	0.44	0.42	0.44	0.43	0.43
Life sciences	0.76	0.72	0.62	0.58	0.53	0.54	0.57	0.59	0.62	0.60	0.63
Physical sciences	0.23	0.24	0.22	0.22	0.21	0.20	0.22	0.22	0.23	0.23	0.26
Mathematics	0.56	0.58	0.56	0.53	0.54	0.53	0.55	0.50	0.49	0.51	0.45
Computer sciences and engineering	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.09	0.09	0.11	0.12
Computer and information sciences	0.17	0.19	0.17	0.20	0.21	0.20	0.22	0.25	0.24	0.27	0.30
Engineering	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.09
Technical/professional	1.27	1.25	1.26	1.26	1.24	1.23	1.23	1.24	1.22	1.23	1.24
Education	1.92	1.98	1.98	1.99	2.04	2.10	2.18	2.26	2.28	2.42	2.48
Business management	0.06	0.06	0.07	0.09	0.11	0.15	0.19	0.22	0.25	0.30	0.33
Health professions	1.85	1.90	1.91	2.00	1.99	2.29	2.37	2.53	2.54	2.66	2.80
Other technical/professional	1.56	1.46	1.34	1.24	1.15	1.08	1.04	1.07	1.08	1.10	1.14

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Humanities	1.08	1.06	1.08	1.12	1.12	1.06	1.06	1.06	1.06	1.09	1.08
Social and behavioral sciences	0.92	0.99	1.04	1.06	1.08	1.05	1.06	1.07	1.06	1.10	1.05
Natural sciences	0.45	0.48	0.52	0.52	0.53	0.55	0.54	0.56	0.55	0.55	0.54
Life sciences	0.69	0.77	0.82	0.91	0.91	0.91	0.92	0.92	0.93	0.92	0.91
Physical sciences	0.27	0.27	0.31	0.30	0.32	0.32	0.31	0.34	0.32	0.33	0.32
Mathematics	0.43	0.47	0.50	0.49	0.50	0.57	0.58	0.57	0.55	0.56	0.54
Computer sciences and engineering	0.14	0.15	0.18	0.18	0.20	0.20	0.19	0.19	0.20	0.19	0.19
Computer and information sciences	0.35	0.39	0.42	0.40	0.42	0.40	0.35	0.36	0.35	0.36	0.32
Engineering	0.10	0.10	0.12	0.12	0.13	0.14	0.13	0.14	0.14	0.14	0.15
Technical/professional	1.25	1.25	1.25	1.26	1.26	1.28	1.29	1.28	1.28	1.27	1.27
Education	2.54	2.64	2.63	2.64	2.66	2.71	2.84	2.84	2.84	2.81	2.84
Business management	0.38	0.41	0.44	0.45	0.45	0.47	0.48	0.47	0.47	0.46	0.46
Health professions	3.03	3.01	3.16	3.23	3.16	3.58	3.41	3.29	3.14	3.24	3.30
Other technical/professional	1.15	1.22	1.25	1.29	1.27	1.28	1.27	1.30	1.32	1.30	1.33

[1] The female field concentration ratio is calculated as the percentage of women earning degrees who majored in a specific field divided by the percentage of men earning degrees who majored in the same field.

[2] Because of reclassification of Instructional Programs in 1991-92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: See Glossary for full definition of "other technical/professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 27-2 Percentage distribution of master's degrees, by field of study and sex: Academic years ending 1971–92[1]

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Female											
Number	92,363	102,083	108,903	119,191	130,880	144,523	149,381	150,408	147,709	147,332	148,696
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	16.3	15.2	13.9	13.2	12.5	11.2	10.6	10.4	10.0	10.0	9.6
Social and behavioral sciences	7.6	7.6	7.5	7.4	7.2	7.0	7.2	7.0	7.0	6.9	7.2
Natural sciences	4.7	4.4	3.9	3.7	3.3	2.9	3.1	3.0	3.2	3.1	2.9
Life sciences	2.1	2.0	1.8	1.7	1.5	1.4	1.6	1.6	1.7	1.6	1.6
Physical sciences	0.9	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7
Mathematics	1.7	1.5	1.4	1.3	1.1	0.9	0.9	0.8	0.8	0.8	0.7
Computer sciences and engineering	0.4	0.5	0.5	0.5	0.5	0.7	0.8	1.0	1.0	1.3	1.6
Computer and information sciences	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.7
Engineering	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.8	0.9
Technical/professional	71.0	72.3	74.2	75.2	76.5	78.2	78.4	78.6	78.8	78.7	78.7
Education	53.4	54.4	55.5	55.6	56.1	56.2	54.9	52.7	51.1	48.5	46.5
Business management	1.1	1.2	1.4	1.8	2.3	3.4	4.4	5.4	6.5	8.3	9.7
Health professions	3.4	4.0	4.4	4.8	5.0	5.8	5.9	6.7	7.4	7.7	8.2
Other technical/professional	13.1	12.8	12.9	13.0	13.0	12.9	13.2	13.9	13.8	14.2	14.3
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Male											
Number	138,146	149,550	154,468	157,842	161,570	167,248	167,783	161,212	153,370	150,749	147,043
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	10.3	10.0	9.6	9.8	9.4	9.0	9.0	9.0	8.9	9.3	9.3
Social and behavioral sciences	11.0	11.0	11.0	11.0	10.5	9.6	9.4	9.0	8.3	7.9	7.8
Natural sciences	9.8	[illegible]	8.8	8.6	8.0	7.2	7.1	7.2	7.3	7.0	6.8
Life sciences	2.8	[illegible]	2.8	2.9	2.8	2.7	2.8	2.7	2.8	2.7	2.5
Physical sciences	4.0	3.6	3.5	3.3	3.1	2.8	2.7	2.9	2.9	2.8	2.9
Mathematics	3.0	2.7	2.5	2.4	2.1	1.8	1.6	1.6	1.6	1.5	1.4
Computer sciences and engineering	12.8	12.3	11.8	10.8	10.5	10.8	10.6	11.2	11.1	11.9	12.6
Computer and information sciences	1.0	1.2	1.2	1.3	1.2	1.3	1.4	1.5	1.6	1.9	2.2
Engineering	11.8	11.2	10.6	9.5	9.3	9.4	9.3	9.6	9.5	10.0	10.4
Technical/professional	56.1	57.6	58.8	59.9	61.6	63.4	63.8	63.6	64.4	63.9	63.4
Education	27.8	27.5	28.0	27.9	27.5	26.8	25.2	23.4	22.4	20.1	18.7
Business management	18.1	19.3	18.9	19.0	20.3	22.2	23.5	24.7	26.3	28.1	29.2
Health professions	1.9	2.1	2.3	2.4	2.5	2.5	2.5	2.6	2.9	2.9	2.9
Other technical/professional	8.4	8.7	9.6	10.5	11.3	11.9	12.7	13.0	12.8	12.8	12.5
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Index of dissimilarity[2]	35.5	36.0	35.5	34.7	35.0	35.3	34.9	35.3	34.8	34.7	34.2

Table 27-2 Percentage distribution of master's degrees, by field of study and sex: Academic years ending 1971–92[1]—Continued

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Female											
Number	150,014	145,224	140,668	142,861	145,059	148,080	151,883	160,898	169,539	176,849	189,139
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	9.9	9.5	10.1	10.0	10.0	9.7	9.5	9.5	9.6	9.5	9.5
Social and behavioral sciences	7.1	7.3	7.2	7.3	7.3	7.1	6.8	7.0	7.1	7.5	6.7
Natural sciences	3.1	3.2	3.4	3.4	3.5	3.5	3.5	3.4	3.2	3.1	2.9
Life sciences	1.6	1.7	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.4	1.3
Physical sciences	0.8	0.8	0.9	0.9	1.0	1.0	0.9	0.9	0.8	0.8	0.8
Mathematics	0.7	0.7	0.8	0.8	0.8	0.9	1.0	0.9	0.9	0.9	0.8
Computer sciences and engineering	2.0	2.3	2.8	3.0	3.4	3.6	3.5	3.6	3.6	3.6	3.4
Computer and information sciences	0.9	1.0	1.3	1.4	1.7	1.7	1.6	1.6	1.6	1.6	1.4
Engineering	1.1	1.2	1.5	1.6	1.7	1.9	1.9	2.0	2.0	2.0	2.0
Technical/professional	77.9	77.7	76.5	76.2	75.8	76.0	76.7	76.5	76.4	76.4	77.5
Education	44.2	41.6	38.8	37.9	37.6	37.0	37.8	38.0	38.0	37.8	37.8
Business management	11.3	12.9	14.2	14.6	14.3	15.0	15.3	15.2	15.4	15.5	15.8
Health professions	8.3	8.8	9.4	9.3	9.8	9.8	9.6	9.3	9.3	9.5	9.7
Other technical/professional	14.1	14.3	14.2	14.5	14.2	14.3	13.9	13.9	13.7	13.6	14.2
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.2	0.7	2.2	1.0
Male											
Number	145,532	144,697	143,595	143,390	143,508	141,269	143,290	148,872	152,926	151,796	159,543
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	9.2	9.0	9.3	8.9	8.9	9.2	9.0	8.9	9.1	8.7	8.8
Social and behavioral sciences	7.8	7.3	6.9	6.9	6.8	6.8	6.4	6.5	6.7	6.8	6.4
Natural sciences	6.9	6.7	6.6	6.5	6.6	6.4	6.4	6.1	5.9	5.7	5.4
Life sciences	2.4	2.2	2.1	1.8	1.8	1.8	1.7	1.7	1.6	1.5	1.4
Physical sciences	3.0	2.9	3.0	3.1	3.1	3.0	3.0	2.8	2.6	2.5	2.5
Mathematics	1.6	1.6	1.5	1.6	1.7	1.6	1.7	1.6	1.7	1.6	1.5
Computer sciences and engineering	13.7	14.8	15.9	17.0	17.3	18.3	19.0	18.9	18.5	18.4	18.2
Computer and information sciences	2.5	2.6	3.0	3.5	3.9	4.2	4.7	4.6	4.6	4.3	4.3
Engineering	11.2	12.1	12.9	13.4	13.4	14.0	14.3	14.4	14.0	14.1	13.9
Technical/professional	62.5	62.2	61.2	60.6	60.4	59.4	59.2	59.5	59.8	60.4	61.2
Education	17.4	15.8	14.7	14.3	14.1	13.7	13.3	13.4	13.4	13.5	13.3
Business management	30.1	31.8	32.2	32.2	32.0	31.8	32.1	32.6	33.1	33.5	34.3
Health professions	2.8	2.9	3.0	2.9	3.1	2.7	2.8	2.8	3.0	2.9	2.9
Other technical/professional	12.3	11.7	11.4	11.2	11.1	11.2	11.0	10.7	10.4	10.4	10.6
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.3	0.5	3.1	1.4
Index of dissimilarity[2]	34.0	33.6	32.9	33.1	33.2	32.8	33.7	33.8	33.6	33.9	34.0

[1] Because of reclassification of Instructional Programs in 1991-92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

[2] The index of dissimilarity is calculated as the sum of the absolute differences between the proportions of women and men earning degrees in each of the fields divided by 2. It was calculated here from the 10 most detailed categories shown above (does not include "other technical/professional"). Here, it represents the percentage of one sex who would have to change fields in order for it to have the identical field distribution as the other sex.

NOTE: Detail may not add to totals due to rounding. See Glossary for full definition of "other technical/professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

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Table 27-3 Number of master's degrees conferred, by field of study and sex: Academic years ending 1971–92*

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Female											
All fields	92,363	102,083	108,903	119,191	130,880	144,523	149,381	150,408	147,709	147,332	148,696
Humanities	15,079	15,550	15,126	15,716	16,357	16,184	15,791	15,658	14,744	14,725	14,297
Social and behavioral sciences	7,028	7,735	8,166	8,785	9,461	10,066	10,686	10,485	10,295	10,224	10,645
Natural sciences	4,315	4,458	4,271	4,395	4,259	4,257	4,624	4,574	4,697	4,503	4,376
Life sciences	1,923	2,014	1,909	1,997	1,963	2,085	2,396	2,406	2,566	2,412	2,324
Physical sciences	846	883	843	876	838	818	881	941	990	971	1,084
Mathematics	1,546	1,561	1,519	1,522	1,458	1,354	1,347	1,227	1,141	1,120	968
Computer sciences and engineering	349	497	503	649	713	959	1,186	1,432	1,526	1,906	2,333
Computer and information sciences	164	225	225	293	338	377	466	567	575	764	971
Engineering	185	272	278	356	375	582	720	865	951	1,142	1,362
Technical/professional	65,592	73,843	80,837	89,646	100,090	113,057	117,094	118,259	116,447	115,974	117,045
Education	49,301	55,527	60,479	66,290	73,411	81,230	81,959	79,254	75,456	71,519	69,165
Business management	1,010	1,183	1,510	2,128	3,026	4,909	6,606	8,094	9,581	12,196	14,411
Health professions	3,182	4,066	4,795	5,780	6,600	8,339	8,788	10,060	10,991	11,347	12,199
Other technical/professional	12,099	13,067	14,053	15,448	17,053	18,579	19,741	20,851	20,419	20,912	21,270
Not classified in a field	0	0	0	0	0	0	0	0	0	0	0
Male											
All fields	138,146	149,550	154,468	157,842	161,570	167,248	167,783	161,212	153,370	150,749	147,043
Humanities	14,273	14,962	14,820	15,512	15,244	15,064	15,168	14,456	13,635	13,956	13,723
Social and behavioral sciences	15,228	16,474	16,930	17,304	16,910	16,054	15,706	14,515	12,800	11,890	11,523
Natural sciences	13,475	13,467	13,646	13,525	12,914	12,106	11,930	11,655	11,138	10,608	9,960
Life sciences	3,805	4,087	4,354	4,555	4,587	4,497	4,718	4,400	4,265	4,098	3,654
Physical sciences	5,521	5,404	5,414	5,186	4,969	4,648	4,450	4,620	4,461	4,248	4,200
Mathematics	4,149	3,976	3,878	3,784	3,358	2,961	2,762	2,635	2,412	2,262	2,106
Computer sciences and engineering	17,682	18,440	18,229	17,006	16,934	17,986	17,857	18,004	17,024	17,984	18,594
Computer and information sciences	1,424	1,752	1,888	1,983	1,961	2,226	2,332	2,471	2,480	2,883	3,247
Engineering	16,258	16,688	16,341	15,023	14,973	15,760	15,525	15,533	14,544	15,101	15,347
Technical/professional	77,488	86,207	90,843	94,495	99,568	106,038	107,122	102,582	98,773	96,311	93,243
Education	38,365	41,141	43,298	44,112	44,430	44,831	42,308	37,662	34,410	30,300	27,548
Business management	24,967	28,845	29,128	30,044	32,732	37,145	39,400	39,743	40,274	42,288	42,980
Health professions	2,567	3,141	3,567	3,819	4,092	4,217	4,163	4,265	4,494	4,357	4,316
Other technical/professional	11,589	13,080	14,850	16,520	18,314	19,845	21,251	20,912	19,595	19,366	18,399
Not classified in a field	0	0	0	0	0	0	0	0	0	0	0

Table 27-3 Number of master's degrees conferred, by field of study and sex: Academic years ending 1971–92*—Continued

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Female											
All fields	150,014	145,224	140,668	142,861	145,059	148,080	151,883	160,898	169,539	176,849	189,139
Humanities	14,859	13,844	14,182	14,334	14,526	14,379	14,423	15,229	16,263	16,757	17,920
Social and behavioral sciences	10,658	10,565	10,151	10,467	10,643	10,523	10,359	11,242	12,089	13,237	12,692
Natural sciences	4,650	4,697	4,784	4,880	5,039	5,226	5,246	5,478	5,491	5,530	5,508
Life sciences	2,448	2,482	2,410	2,412	2,397	2,414	2,361	2,469	2,474	2,463	2,484
Physical sciences	1,196	1,133	1,308	1,344	1,432	1,410	1,409	1,524	1,439	1,472	1,465
Mathematics	1,006	1,082	1,066	1,124	1,210	1,402	1,476	1,485	1,578	1,595	1,559
Computer sciences and engineering	2,938	3,304	3,966	4,345	4,904	5,346	5,380	5,833	6,132	6,289	6,480
Computer and information sciences	1,310	1,508	1,811	2,037	2,412	2,496	2,471	2,639	2,717	2,761	2,646
Engineering	1,628	1,796	2,155	2,308	2,492	2,850	2,909	3,194	3,415	3,528	3,834
Technical/professional	116,909	112,814	107,585	108,835	109,947	112,606	116,475	123,116	129,564	135,036	146,539
Education	66,262	60,427	54,522	54,117	54,506	54,752	57,458	61,218	64,414	66,895	71,424
Business management	16,956	18,759	19,972	20,787	20,751	22,180	23,250	24,525	26,091	27,372	29,937
Health professions	12,497	12,812	13,160	13,266	14,145	14,520	14,610	15,042	15,787	16,756	18,374
Other technical/professional	21,194	20,816	19,931	20,665	20,545	21,154	21,157	22,331	23,272	24,013	26,804
Not classified in a field	0	0	0	0	0	0	2,271	369	1,109	3,837	1,857
Male											
All fields	145,532	144,697	143,595	143,390	143,508	141,269	143,290	148,872	152,926	151,796	159,543
Humanities	13,319	13,037	13,423	12,827	12,781	12,993	12,851	13,240	13,855	13,249	14,045
Social and behavioral sciences	11,291	10,621	9,951	9,927	9,766	9,545	9,233	9,721	10,275	10,345	10,225
Natural sciences	10,001	9,687	9,442	9,388	9,483	9,085	9,138	9,109	8,973	8,585	8,662
Life sciences	3,426	3,214	2,996	2,647	2,616	2,538	2,423	2,492	2,395	2,302	2,301
Physical sciences	4,318	4,157	4,268	4,452	4,470	4,219	4,324	4,199	4,010	3,837	3,909
Mathematics	2,257	2,316	2,178	2,289	2,397	2,328	2,391	2,418	2,568	2,446	2,452
Computer sciences and engineering	19,936	21,361	22,879	24,311	24,823	25,789	27,202	28,149	28,317	27,993	29,027
Computer and information sciences	3,625	3,813	4,379	5,064	5,658	5,985	6,726	6,775	6,960	6,563	6,884
Engineering	16,311	17,548	18,500	19,247	19,165	19,804	20,476	21,374	21,357	21,430	22,143
Technical/professional	90,985	89,991	87,900	86,937	86,655	83,857	84,866	88,653	91,506	91,624	97,584
Education	25,339	22,823	21,142	20,537	20,295	19,293	19,108	19,956	20,467	20,448	21,244
Business management	43,807	45,999	46,178	46,209	45,938	44,913	45,980	48,540	50,585	50,883	54,705
Health professions	4,006	4,235	4,251	4,119	4,428	3,874	4,047	4,226	4,534	4,444	4,691
Other technical/professional	17,833	16,934	16,329	16,072	15,994	15,777	15,731	15,931	15,920	15,849	16,944
Not classified in a field	0	0	0	0	0	0	1,873	482	727	4,686	2,299

* Because of reclassification of Instructional Programs in 1991–92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: See Glossary for full definition of "other technical/professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 27-4 Female field concentration ratio[1] at the doctor's degree level, by field of study: Academic years ending 1971–92[2]

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Humanities	1.89	1.87	1.77	1.71	1.59	1.50	1.41	1.32	1.18	1.10	1.15
Social and behavioral sciences	1.29	1.22	1.21	1.28	1.26	1.21	1.29	1.23	1.28	1.30	1.26
Natural sciences	0.67	0.66	0.65	0.63	0.62	0.57	0.56	0.57	0.59	0.56	0.56
Life sciences	1.17	1.09	1.12	1.08	1.04	0.92	0.84	0.89	0.88	0.83	0.87
Physical sciences	0.36	0.38	0.33	0.32	0.33	0.32	0.33	0.31	0.33	0.34	0.30
Mathematics	0.50	0.45	0.48	0.43	0.44	0.40	0.46	0.49	0.50	0.37	0.40
Computer sciences and engineering	0.04	0.05	0.09	0.08	0.09	0.10	0.11	0.08	0.11	0.11	0.11
Computer and information sciences	0.14	0.41	0.38	0.20	0.26	0.35	0.30	0.23	0.37	0.30	0.24
Engineering	0.04	0.03	0.07	0.07	0.08	0.08	0.09	0.07	0.09	0.09	0.09
Technical/professional	1.27	1.28	1.23	1.21	1.26	1.33	1.32	1.41	1.43	1.51	1.54
Education	1.60	1.61	1.48	1.52	1.61	1.66	1.61	1.79	1.84	1.86	1.98
Business management	0.17	0.12	0.28	0.24	0.16	0.19	0.21	0.26	0.34	0.41	0.39
Health professions	1.19	1.18	1.53	1.24	1.48	1.36	1.46	1.75	1.49	1.91	1.71
Other technical/professional	0.76	0.77	0.81	0.70	0.72	0.89	0.88	0.80	0.77	0.87	0.87

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Humanities	1.15	1.09	1.08	1.07	1.08	1.08	1.06	1.05	1.06	1.13	1.13
Social and behavioral sciences	1.26	1.38	1.37	1.38	1.42	1.43	1.54	1.48	1.58	1.71	1.50
Natural sciences	0.57	0.59	0.57	0.60	0.58	0.61	0.63	0.64	0.65	0.64	0.69
Life sciences	0.87	0.96	0.88	0.94	0.93	0.99	1.01	1.00	1.06	1.01	1.04
Physical sciences	0.34	0.33	0.35	0.37	0.37	0.38	0.41	0.43	0.42	0.42	0.47
Mathematics	0.33	0.40	0.42	0.35	0.37	0.38	0.36	0.42	0.38	0.41	0.46
Computer sciences and engineering	0.13	0.11	0.12	0.14	0.15	0.15	0.15	0.18	0.19	0.18	0.19
Computer and information sciences	0.19	0.30	0.23	0.22	0.28	0.30	0.23	0.32	0.30	0.27	0.26
Engineering	0.12	0.09	0.12	0.13	0.13	0.14	0.14	0.17	0.17	0.17	0.18
Technical/professional	1.56	1.50	1.54	1.57	1.61	1.65	1.69	1.73	1.69	1.70	1.76
Education	1.99	1.99	1.99	2.09	2.10	2.18	2.25	2.32	2.35	2.34	2.47
Business management	0.47	0.41	0.54	0.40	0.52	0.58	0.58	0.65	0.59	0.60	0.51
Health professions	1.78	1.57	2.03	2.17	1.94	2.12	2.41	2.35	2.07	2.27	2.33
Other technical/professional	0.93	0.83	0.88	0.89	1.00	1.01	1.03	0.98	1.00	0.99	1.01

[1] The female field concentration ratio is calculated as the percentage of women earning degrees who majored in a specific field divided by the percentage of men earning degrees who majored in the same field.

[2] Because of reclassification of Instructional Programs in 1991-92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: See Glossary for full definition of "other technical/professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 27-5 Percentage distribution of doctor's degrees, by field of study and sex: Academic years ending 1971–92[1]

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Female											
Number	4,577	5,273	6,206	6,451	7,266	7,797	8,090	8,473	9,189	9,672	10,247
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	22.8	23.4	24.1	23.5	22.0	21.4	20.0	19.0	18.4	16.2	15.8
Social and behavioral sciences	22.3	22.4	22.8	25.2	24.9	24.8	26.0	24.3	24.0	24.3	23.6
Natural sciences	20.5	18.7	17.4	16.3	15.9	14.4	14.3	14.6	15.0	14.8	15.1
Life sciences	13.0	11.8	11.4	10.8	10.2	9.3	9.0	9.4	9.9	9.8	10.3
Physical sciences	5.4	5.2	4.3	3.9	4.1	3.8	3.9	3.7	3.8	4.0	3.7
Mathematics	2.1	1.7	1.6	1.6	1.5	1.2	1.4	1.5	1.4	1.1	1.2
Computer sciences and engineering	0.6	0.6	1.1	1.0	1.1	1.1	1.1	0.8	1.2	1.3	1.3
Computer and information sciences	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.3	0.3	0.2
Engineering	0.5	0.4	0.9	0.9	0.9	0.8	0.9	0.7	0.9	1.0	1.0
Technical/professional	33.9	34.9	34.6	34.0	36.1	38.2	38.5	41.2	41.4	43.4	44.2
Education	27.7	29.3	26.8	27.6	29.2	30.5	31.0	32.3	32.6	33.2	33.5
Business management	0.5	0.4	0.8	0.8	0.5	0.6	0.6	0.8	1.1	1.1	1.2
Health professions	1.7	1.5	2.6	2.0	2.4	2.1	2.1	3.0	2.9	3.6	3.6
Other technical/professional	4.0	3.7	4.3	3.6	3.9	5.0	4.8	5.1	4.9	5.4	5.9
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Male											
Number	27,530	28,090	28,571	27,365	26,817	26,267	25,142	23,658	23,541	22,943	22,711
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	12.0	12.5	13.6	13.7	13.8	14.3	14.2	14.4	15.5	14.7	13.8
Social and behavioral sciences	17.4	18.4	18.8	19.6	19.8	20.5	20.2	19.8	18.7	18.6	18.8
Natural sciences	30.3	28.3	26.8	26.0	25.7	25.2	25.6	25.6	25.6	26.4	26.8
Life sciences	11.1	10.8	10.2	10.0	9.8	10.1	10.6	10.6	11.2	11.7	11.7
Physical sciences	15.1	13.6	13.1	12.3	12.4	11.9	12.0	11.9	11.7	11.8	12.2
Mathematics	4.2	3.8	3.5	3.6	3.5	3.1	3.0	3.1	2.7	2.9	2.9
Computer sciences and engineering	13.6	13.5	12.7	12.6	12.1	11.3	10.8	10.8	11.2	11.4	11.8
Computer and information sciences	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	1.0
Engineering	13.1	13.0	12.0	11.9	11.3	10.5	10.0	10.1	10.3	10.5	10.8
Technical/professional	26.7	27.3	28.1	28.1	28.5	28.8	29.2	29.3	29.0	28.8	28.8
Education	17.3	18.2	18.2	18.2	18.1	18.4	19.2	18.1	17.7	17.9	16.9
Business management	2.7	3.0	3.0	3.2	3.3	3.2	3.1	3.2	3.1	2.8	3.0
Health professions	1.4	1.3	1.7	1.6	1.6	1.6	1.5	1.7	1.9	1.9	2.1
Other technical/professional	5.3	4.8	5.3	5.1	5.4	5.6	5.4	6.3	6.3	6.2	6.8
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Index of dissimilarity[2]	27.7	26.7	24.8	25.2	24.7	23.8	23.7	24.0	23.3	23.8	24.5

Table 27-5 Percentage distribution of doctor's degrees, by field of study and sex: Academic years ending 1971–92—Continued[1]

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Female											
Number	10,483	10,873	11,145	11,243	11,834	11,980	12,012	13,062	13,865	14,214	14,922
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	15.7	14.8	14.7	14.1	14.2	13.9	13.2	12.8	13.3	13.4	14.0
Social and behavioral sciences	23.2	24.4	23.7	23.4	24.1	23.7	23.6	23.2	23.3	24.4	20.8
Natural sciences	15.6	15.2	15.0	15.9	15.6	16.4	17.4	17.1	17.5	18.0	18.9
Life sciences	10.4	9.9	9.5	10.0	9.5	10.0	10.7	9.8	10.5	10.7	10.9
Physical sciences	4.3	4.2	4.4	4.9	5.0	5.3	5.7	5.9	5.8	5.9	6.4
Mathematics	0.9	1.1	1.2	1.0	1.1	1.1	1.1	1.4	1.2	1.4	1.5
Computer sciences and engineering	1.5	1.5	1.7	2.1	2.3	2.6	2.8	3.7	3.9	4.1	4.2
Computer and information sciences	0.2	0.3	0.2	0.2	0.4	0.4	0.4	0.7	0.7	0.6	0.7
Engineering	1.3	1.1	1.5	1.9	1.9	2.2	2.4	3.1	3.2	3.4	3.5
Technical/professional	44.0	44.2	44.9	44.5	43.7	43.5	42.9	43.1	42.0	40.2	42.1
Education	32.3	32.3	31.1	30.6	29.7	29.0	27.6	27.8	26.9	25.1	27.3
Business management	1.4	1.2	1.8	1.3	1.7	2.1	2.1	2.3	2.0	2.2	1.9
Health professions	4.0	4.7	5.3	5.6	5.4	5.4	5.9	6.3	6.0	6.5	6.5
Other technical/professional	6.2	6.0	6.7	7.0	6.9	6.9	7.3	6.7	7.1	6.4	6.3
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.1	0.8	2.3	1.2
Male											
Number	22,224	21,902	22,064	21,700	21,819	22,061	22,279	22,597	24,248	24,333	25,168
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	13.6	13.5	13.5	13.2	13.2	12.9	12.4	12.2	12.5	11.8	12.4
Social and behavioral sciences	18.4	17.7	17.2	16.9	16.9	16.5	15.4	15.7	14.8	14.3	13.8
Natural sciences	27.5	26.0	26.3	26.6	26.8	26.7	27.6	26.8	27.0	28.2	27.4
Life sciences	11.9	10.3	10.8	10.6	10.2	10.1	10.5	9.9	9.9	10.6	10.4
Physical sciences	12.8	12.8	12.8	13.1	13.6	13.8	14.0	13.7	13.8	14.2	13.6
Mathematics	2.8	2.8	2.8	2.9	3.0	2.8	3.0	3.3	3.3	3.4	3.4
Computer sciences and engineering	12.3	13.4	13.8	15.0	15.9	17.6	19.2	20.3	20.9	22.1	22.4
Computer and information sciences	1.0	1.0	1.0	1.0	1.4	1.5	1.7	2.1	2.2	2.4	2.7
Engineering	11.2	12.4	12.8	13.9	14.6	16.1	17.5	18.2	18.7	19.7	19.8
Technical/professional	28.2	29.4	29.1	28.3	27.2	26.3	25.5	25.0	24.8	23.6	23.9
Education	16.3	16.2	15.6	14.6	14.2	13.3	12.3	12.0	11.4	10.7	11.1
Business management	3.0	2.9	3.3	3.2	3.3	3.7	3.6	3.5	3.4	3.6	3.8
Health professions	2.3	3.0	2.6	2.6	2.8	2.6	2.5	2.7	2.9	2.9	2.8
Other technical/professional	6.7	7.3	7.6	7.9	6.9	6.8	7.1	6.8	7.1	6.5	6.3
Not classified in a field	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.2	0.6	1.7	1.5
Index of dissimilarity[2]	24.4	25.1	25.3	25.9	26.4	26.8	28.0	27.6	28.5	29.7	29.0

[1] Because of reclassification of Instructional Programs in 1991–92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

[2] The index of dissimilarity is calculated as the sum of the absolute differences between the proportions of women and men earning degrees in each of the fields divided by 2. It was calculated here from the 10 most detailed categories shown above (does not include "other technical/professional"). Here, it represents the percentage of one sex who would have to change fields in order for it to have the identical field distribution of the other sex.

NOTE: Detail may not add to totals due to rounding. See Glossary for full definition of "other technical/professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 27-6 Number of doctor's degrees conferred, by field of study and sex: Academic years ending 1971–92*

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Female											
All fields	4,577	5,273	6,206	6,451	7,266	7,797	8,090	8,473	9,189	9,672	10,247
Humanities	1,043	1,233	1,496	1,513	1,597	1,667	1,622	1,613	1,687	1,571	1,621
Social and behavioral sciences	1,022	1,181	1,414	1,626	1,812	1,937	2,104	2,062	2,203	2,347	2,422
Natural sciences	936	985	1,080	1,053	1,156	1,125	1,156	1,236	1,381	1,434	1,547
Life sciences	595	622	710	699	743	729	726	798	906	946	1,052
Physical sciences	246	273	268	253	301	299	319	312	350	384	376
Mathematics	95	90	102	101	112	97	111	126	125	104	119
Computer sciences and engineering	26	34	69	64	80	89	92	72	113	122	129
Computer and information sciences	3	12	15	9	14	23	19	15	30	27	25
Engineering	23	22	54	55	66	66	73	57	83	95	104
Technical/professional	1,550	1,840	2,147	2,195	2,621	2,979	3,116	3,490	3,805	4,198	4,528
Education	1,270	1,544	1,666	1,783	2,119	2,376	2,506	2,737	2,996	3,214	3,436
Business management	21	19	52	49	39	49	52	70	97	111	120
Health professions	77	80	161	131	177	166	172	252	264	351	367
Other technical/professional	182	197	268	232	286	388	386	431	448	522	605
Not classified in a field	0	0	0	0	0	0	0	0	0	0	0
Male											
All fields	27,530	28,090	28,571	27,365	26,817	26,267	25,142	23,658	23,541	22,943	22,711
Humanities	3,317	3,510	3,889	3,757	3,711	3,749	3,565	3,410	3,649	3,378	3,128
Social and behavioral sciences	4,782	5,177	5,370	5,370	5,313	5,377	5,084	4,696	4,396	4,278	4,276
Natural sciences	8,348	7,936	7,651	7,105	6,902	6,607	6,441	6,054	6,032	6,054	6,087
Life sciences	3,050	3,031	2,926	2,740	2,641	2,663	2,671	2,511	2,636	2,690	2,666
Physical sciences	4,144	3,830	3,738	3,373	3,325	3,132	3,022	2,821	2,752	2,705	2,765
Mathematics	1,154	1,075	987	992	936	812	748	722	644	659	656
Computer sciences and engineering	3,740	3,804	3,619	3,446	3,241	2,976	2,710	2,564	2,629	2,625	2,684
Computer and information sciences	125	155	181	189	199	221	197	181	206	213	227
Engineering	3,615	3,649	3,438	3,257	3,042	2,755	2,513	2,383	2,423	2,412	2,457
Technical/professional	7,343	7,663	8,042	7,687	7,650	7,558	7,342	6,934	6,835	6,608	6,536
Education	4,771	5,104	5,191	4,974	4,856	4,826	4,832	4,281	4,174	4,100	3,843
Business management	736	840	850	870	897	851	775	753	724	642	675
Health professions	389	362	485	447	441	411	366	402	454	435	475
Other technical/professional	1,447	1,357	1,516	1,396	1,456	1,470	1,369	1,498	1,483	1,431	1,543
Not classified in a field	0	0	0	0	0	0	0	0	0	0	0

Table 27-6 Number of doctor's degrees conferred, by field of study and sex: Academic years ending 1971–92*—Continued

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Female											
All fields	10,483	10,873	11,145	11,243	11,834	11,980	12,012	13,062	13,865	14,214	14,922
Humanities	1,645	1,604	1,634	1,588	1,683	1,663	1,580	1,677	1,844	1,901	2,091
Social and behavioral sciences	2,429	2,653	2,642	2,626	2,854	2,835	2,839	3,031	3,236	3,468	3,106
Natural sciences	1,638	1,653	1,676	1,791	1,846	1,959	2,094	2,234	2,430	2,558	2,816
Life sciences	1,089	1,075	1,056	1,125	1,129	1,194	1,280	1,286	1,450	1,516	1,623
Physical sciences	451	458	491	552	588	634	686	770	808	843	962
Mathematics	98	120	129	114	129	131	128	178	172	199	231
Computer sciences and engineering	161	159	191	233	274	315	341	485	538	577	630
Computer and information sciences	21	34	26	25	45	52	48	[illegible]	93	92	103
Engineering	140	125	165	208	229	263	293	400	445	485	527
Technical/professional	4,610	4,804	5,002	5,005	5,177	5,208	5,158	5,635	5,817	5,710	6,279
Education	3,387	3,510	3,465	3,440	3,517	3,476	3,321	3,633	3,726	3,574	4,081
Business management	147	132	199	143	205	254	253	300	275	309	289
Health professions	422	506	590	634	637	649	713	828	832	919	963
Other technical/professional	654	656	748	788	818	829	871	874	984	908	946
Not classified in a field	0	0	0	0	0	0	243	10	105	324	180
Male											
All fields	22,224	21,902	22,064	21,700	21,819	22,061	22,279	22,597	24,248	24,333	25,168
Humanities	3,021	2,959	2,982	2,867	2,876	2,840	2,766	2,759	3,029	2,871	3,125
Social and behavioral sciences	4,093	3,880	3,804	3,672	3,694	3,641	3,422	3,539	3,585	3,476	3,485
Natural sciences	6,112	5,688	5,810	5,778	5,840	5,892	6,140	6,059	6,544	6,861	6,900
Life sciences	2,654	2,266	2,381	2,307	2,229	2,225	2,349	2,234	2,394	2,577	2,620
Physical sciences	2,835	2,811	2,815	2,851	2,963	3,039	3,123	3,088	3,356	3,447	3,429
Mathematics	623	611	614	620	648	628	668	737	794	837	851
Computer sciences and engineering	2,726	2,934	3,041	3,245	3,480	3,877	4,278	4,589	5,070	5,371	5,641
Computer and information sciences	230	228	225	223	299	322	380	466	534	584	669
Engineering	2,496	2,706	2,816	3,022	3,181	3,555	3,898	4,123	4,536	4,787	4,972
Technical/professional	6,272	6,441	6,427	6,138	5,929	5,811	5,673	5,651	6,020	5,754	6,017
Education	3,612	3,547	3,446	3,172	3,088	2,931	2,739	2,704	2,776	2,613	2,783
Business management	668	644	730	688	729	808	810	800	818	876	953
Health professions	503	649	574	565	604	564	548	609	704	694	698
Other technical/professional	1,489	1,601	1,677	1,713	1,508	1,508	1,576	1,538	1,722	1,571	1,583
Not classified in a field	0	0	0	0	0	0	336	51	153	423	389

* Because of reclassification of Instructional Programs in 1991–92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: See Glossary for full definition of "other technical/professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 239 and 240 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 27-7 Number of master's degrees conferred, by race/ethnicity and field of study: Selected academic years ending 1989–92

Race/ethnicity and field of study	1989	1990	1991*	1992*
White	242,756	251,689	255,281	268,371
Humanities	23,102	24,322	24,140	25,424
Social and behavioral sciences	15,102	15,897	18,392	17,771
Natural sciences	9,883	9,580	9,380	9,223
Life sciences	3,807	3,668	3,514	3,404
Physical sciences	3,947	3,620	3,351	3,296
Mathematics	2,129	2,292	2,515	2,523
Computer sciences and engineering	19,561	19,800	19,101	19,046
Computer and information sciences	5,316	5,536	4,958	4,678
Engineering	14,245	14,264	14,143	14,368
Technical/professional	175,108	182,090	184,268	196,907
Education	71,119	73,860	74,764	78,874
Health professions	57,785	60,793	61,087	65,320
Business management	16,277	17,143	17,746	19,220
Other technical/professional	29,927	30,294	30,671	33,493
Black	14,096	15,446	16,139	18,116
Humanities	744	840	856	1,104
Social and behavioral sciences	810	937	1,166	1,164
Natural sciences	265	281	348	345
Life sciences	124	115	144	156
Physical sciences	79	91	80	105
Mathematics	62	75	124	84
Computer sciences and engineering	626	713	770	884
Computer and information sciences	211	276	303	334
Engineering	415	437	467	550
Technical/professional	11,651	12,675	12,999	14,619
Education	5,310	5,625	5,731	6,444
Health professions	3,062	3,345	3,517	3,966
Business management	855	934	1,051	1,136
Other technical/professional	2,424	2,771	2,700	3,073
Hispanic	7,282	7,954	8,386	9,358
Humanities	753	843	836	987
Social and behavioral sciences	546	596	694	680
Natural sciences	219	220	267	296
Life sciences	112	94	101	141
Physical sciences	77	78	86	91
Mathematics	30	48	80	64
Computer sciences and engineering	609	588	628	699
Computer and information sciences	146	136	137	158
Engineering	463	452	491	541
Technical/professional	5,155	5,707	5,961	6,696
Education	2,194	2,542	2,692	2,838
Health professions	1,581	1,643	1,680	1,944
Business management	402	460	446	559
Other technical/professional	978	1,062	1,143	1,355

Table 27-7 Number of master's degrees conferred, by race/ethnicity and field of study: Selected academic years ending 1989–92—Continued

Race/ethnicity and field of study	1989	1990	1991*	1992*
Asian/Pacific Islander	10,336	10,578	11,180	12,658
Humanities	830	826	833	979
Social and behavioral sciences	444	488	559	590
Natural sciences	704	674	725	810
Life sciences	229	230	242	276
Physical sciences	286	247	268	318
Mathematics	189	197	215	216
Computer sciences and engineering	3,045	3,049	3,260	3,603
Computer and information sciences	947	1,060	1,085	1,171
Engineering	2,098	1,989	2,175	2,432
Technical/professional	5,313	5,541	5,803	6,676
Education	961	1,023	1,103	1,192
Health professions	2,924	2,979	3,140	3,635
Business management	551	639	627	739
Other technical/professional	877	900	933	1,110
American Indian/Alaskan Native	1,086	1,099	1,136	1,273
Humanities	88	110	81	125
Social and behavioral sciences	85	86	105	91
Natural sciences	39	30	38	36
Life sciences	16	14	13	13
Physical sciences	17	10	14	19
Mathematics	6	6	11	4
Computer sciences and engineering	79	50	60	67
Computer and information sciences	41	7	15	16
Engineering	38	43	45	51
Technical/professional	795	823	852	954
Education	381	411	405	457
Health professions	181	188	201	220
Business management	79	83	95	94
Other technical/professional	154	141	151	183

* The new classification of instructional programs was initiated in 1991–92. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: See Glossary for full definition of "other technical/professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 255 and 256 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 27-8 Number of doctor's degrees conferred, by race/ethnicity and field of study: Selected academic years ending 1989–92

Race/ethnicity and field of study	1989	1990	1991*	1992*
White	24,882	25,880	25,328	25,813
Humanities	3,580	2,835	3,623	3,921
Social and behavioral sciences	4,720	4,862	5,298	4,983
Natural sciences	5,514	5,776	5,766	5,715
Life sciences	2,666	2,801	2,764	2,785
Physical sciences	2,441	2,578	2,566	2,470
Mathematics	407	397	436	460
Computer sciences and engineering	2,233	2,400	2,390	2,473
Computer and information sciences	297	316	332	366
Engineering	1,936	2,084	2,058	2,107
Technical/professional	8,835	9,014	8,251	8,721
Education	5,458	5,570	4,907	5,404
Health professions	745	659	714	700
Business management	1,107	1,120	1,157	1,161
Other technical/professional	1,525	1,665	1,473	1,456
Black	1,065	1,152	1,211	1,223
Humanities	122	107	162	187
Social and behavioral sciences	218	218	275	225
Natural sciences	94	77	95	90
Life sciences	56	44	46	57
Physical sciences	30	28	38	31
Mathematics	8	5	11	2
Computer sciences and engineering	28	38	51	50
Computer and information sciences	1	4	4	5
Engineering	27	34	47	45
Technical/professional	603	682	628	671
Education	454	528	441	513
Health professions	19	18	24	27
Business management	41	39	59	45
Other technical/professional	89	97	104	86
Hispanic	628	788	732	811
Humanities	89	141	123	137
Social and behavioral sciences	148	197	192	165
Natural sciences	111	155	146	175
Life sciences	50	75	66	89
Physical sciences	54	75	67	75
Mathematics	7	5	13	11
Computer sciences and engineering	46	44	59	64
Computer and information sciences	4	2	6	6
Engineering	42	42	53	58
Technical/professional	234	251	222	270
Education	166	164	148	187
Health professions	13	9	6	11
Business management	16	33	39	26
Other technical/professional	39	45	29	46

Table 27-8 Number of doctor's degrees conferred, by race/ethnicity and field of study: Selected academic years ending 1989–92—Continued

Race/ethnicity and field of study	1989	1990	1991*	1992*
Asian/Pacific Islander	1,324	1,235	1,459	1,559
Humanities	120	129	151	130
Social and behavioral sciences	162	149	159	170
Natural sciences	387	347	424	493
Life sciences	174	158	206	214
Physical sciences	183	152	177	224
Mathematics	30	37	41	55
Computer sciences and engineering	363	341	411	460
Computer and information sciences	40	32	39	45
Engineering	323	309	372	415
Technical/professional	292	269	314	306
Education	125	87	121	100
Health professions	58	56	54	63
Business management	44	62	64	68
Other technical/professional	65	64	75	75
American Indian/Alaskan Native	85	99	102	118
Humanities	9	13	7	17
Social and behavioral sciences	18	20	28	25
Natural sciences	24	9	15	19
Life sciences	10	4	5	11
Physical sciences	13	5	9	6
Mathematics	1	0	1	2
Computer sciences and engineering	3	6	8	12
Computer and information sciences	0	1	1	1
Engineering	3	5	7	11
Technical/professional	31	51	44	45
Education	25	36	35	36
Health professions	2	3	2	2
Business management	2	9	3	3
Other technical/professional	2	3	4	4

* The new classification of instructional programs was initiated in 1991-92. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: See Glossary for full definition of "other/technical professional" fields.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 255 and 256 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 28-1 Rates of labor force participation, employment, and unemployment of recent high school graduates not enrolled in college, by sex: October 1960–93

October	Both sexes			Male			Female		
	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment
1960	76.7	65.0	15.2	88.5	75.3	14.9	69.5	58.8	15.3
1961	79.7	65.4	17.9	86.1	70.1	18.5	75.8	62.5	17.6
1962	79.5	68.3	14.1	90.8	77.8	14.3	71.4	61.5	13.8
1963	78.9	64.7	18.0	89.7	72.6	19.1	71.8	59.5	17.1
1964	77.9	63.4	18.7	90.9	79.2	12.9	69.8	53.5	23.4
1965	82.1	71.9	12.4	91.0	84.3	7.4	75.8	63.2	16.6
1966	75.7	64.9	14.2	87.3	79.7	8.7	68.4	55.8	18.5
1967	78.7	65.9	16.2	86.6	78.3	9.5	73.5	57.7	21.4
1968	77.8	67.3	13.5	88.1	79.1	10.2	71.6	60.2	16.0
1969	79.1	70.1	11.4	90.0	83.1	7.6	71.6	61.1	14.7
1970	77.2	63.2	18.1	87.4	76.1	12.9	68.8	52.6	23.6
1971	78.7	65.1	17.2	90.0	77.5	13.9	69.9	55.6	20.5
1972	82.2	70.1	14.7	91.2	80.1	12.2	74.9	62.1	17.1
1973	80.6	70.7	12.3	90.4	81.8	9.5	72.9	61.9	15.1
1974	83.3	69.1	17.0	89.8	76.0	15.4	77.5	63.1	18.6
1975	81.3	65.1	19.9	91.5	74.1	19.1	72.6	57.5	20.8
1976	84.0	68.9	18.1	91.3	75.9	16.8	76.8	61.7	19.6
1977	85.3	71.9	15.7	90.8	77.7	14.4	80.9	67.1	17.0
1978	86.2	74.0	14.1	91.7	81.4	11.2	81.3	67.5	17.0
1979	86.8	72.4	16.5	92.0	79.1	14.0	82.3	66.7	18.9
1980	85.0	68.9	19.0	89.7	72.6	19.1	80.9	65.8	18.6
1981	83.9	65.9	21.4	86.9	70.0	19.5	81.0	62.1	23.4
1982	82.0	60.4	26.3	85.8	64.9	24.4	78.2	56.0	28.5
1983	84.5	62.9	25.5	88.8	66.1	25.6	80.5	60.0	25.4
1984	83.0	64.0	22.9	89.7	69.0	23.0	77.1	59.6	22.7
1985	82.3	62.0	24.6	86.1	65.0	24.5	78.8	59.3	24.7
1986	81.4	65.2	19.9	86.2	69.5	19.4	77.3	61.6	20.3
1987	83.8	68.9	17.8	89.1	76.9	13.7	79.1	61.8	21.9
1988	84.7	71.9	15.1	88.5	74.1	16.2	80.4	69.4	13.7
1989	84.4	71.9	14.7	89.3	77.8	12.9	79.1	65.7	16.9
1990	83.4	67.5	19.0	89.5	74.1	17.2	76.7	60.3	21.4
1991	79.6	59.6	25.2	84.2	62.3	26.0	74.0	56.0	24.3
1992	77.4	62.7	19.0	84.8	68.8	18.9	68.6	55.7	18.8
1993	84.2	64.2	23.7	86.0	67.7	21.2	82.4	60.6	26.5

NOTE: Recent high school graduates are individuals aged 16–24 who graduated in the year of the survey. The labor force participation rate is the percent of the population either employed or unemployed. The employment rate is the percent of the population employed. The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. See supplemental note to this indicator for a comparison of these labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–87*, and U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 28-2 Rates of labor force participation, employment, and unemployment of recent school dropouts not enrolled in college, by sex: October 1960–93

October	Both sexes			Male			Female		
	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment
1960	62.2	50.9	18.2	76.4	61.8	19.0	49.2	40.8	17.0
1961	67.5	49.4	26.8	83.8	60.3	28.0	50.9	38.3	24.7
1962	56.5	40.4	28.6	84.9	61.9	27.1	34.0	23.3	31.5
1963	65.9	45.1	31.7	83.3	64.4	22.7	49.6	27.0	45.7
1964	55.3	41.6	24.8	76.6	63.0	17.7	37.8	24.0	36.5
1965	61.0	47.9	21.4	82.8	66.8	19.4	36.4	26.8	26.5
1966	62.3	51.4	17.4	80.3	69.4	13.6	44.4	33.6	24.4
1967	63.7	50.3	21.0	80.3	65.0	19.1	45.6	34.4	24.6
1968	63.9	50.0	21.8	80.3	65.5	18.5	47.0	34.0	27.7
1969	61.3	51.0	16.8	81.8	69.8	14.7	39.4	30.9	21.4
1970	60.0	44.7	25.5	78.9	56.5	28.4	39.5	31.9	19.3
1971	63.6	46.8	26.4	80.8	59.3	26.6	42.9	31.7	26.2
1972	62.7	46.0	26.5	82.3	63.2	23.2	42.3	28.5	32.7
1973	66.2	51.5	22.2	81.1	61.5	24.2	47.4	38.7	18.3
1974	67.0	48.1	28.3	82.4	62.2	24.6	48.8	31.2	36.1
1975	62.7	41.4	34.0	82.4	54.1	34.3	43.4	29.0	33.3
1976	62.9	43.5	30.8	77.6	55.7	28.2	44.1	28.0	36.6
1977	68.5	50.2	26.7	81.0	60.9	24.8	54.0	38.0	29.5
1978	68.7	49.7	27.6	80.2	61.0	24.0	53.1	34.7	34.6
1979	65.9	48.8	26.0	79.0	64.0	19.0	53.4	34.0	36.4
1980	63.9	43.7	31.5	72.9	50.7	30.4	52.3	34.7	33.5
1981	63.5	40.5	36.2	74.1	52.6	29.0	52.6	28.0	46.7
1982	63.0	36.8	41.6	76.6	43.4	43.4	47.6	29.4	38.3
1983	63.1	43.2	31.6	75.4	50.8	32.7	48.1	34.0	29.5
1984	64.4	42.9	33.3	77.7	51.7	33.5	49.1	32.9	33.1
1985	67.5	43.5	35.6	81.3	50.8	37.5	52.2	35.4	32.2
1986	63.9	46.1	27.9	72.0	56.0	22.2	54.6	34.7	36.4
1987	66.3	41.2	37.8	73.7	45.6	38.1	57.5	36.0	37.4
1988	59.2	43.5	26.6	74.6	53.4	28.4	40.0	31.0	22.4
1989	65.5	47.1	28.1	74.5	52.3	29.8	54.7	40.9	25.2
1990	68.9	46.7	32.3	80.5	51.2	36.4	56.3	41.6	26.2
1991	61.7	36.9	40.2	75.0	48.9	34.8	48.7	25.1	48.4
1992	59.2	36.1	38.9	68.6	44.7	34.9	50.5	28.7	43.1
1993	63.7	46.9	26.4	73.6	61.8	16.0	52.7	30.1	42.9

NOTE: Recent school dropouts are individuals aged 16-24 who were not high school graduates, who were in school 12 months earlier, but who were not enrolled during the survey month. The labor force participation rate is the percent of the population either employed or unemployed. The employment rate is the percent of the population employed. The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. See supplemental note to this indicator for a comparison of these labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940-87*, and U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 28-3 Rates of labor force participation, employment, and unemployment of recent high school graduates not enrolled in college, by race/ethnicity: October 1973–93

October	White			Black			Hispanic		
	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment
1973	83.2	74.9	10.0	69.9	49.8	28.8	(*)	(*)	(*)
1974	84.8	72.9	14.1	75.0	45.9	38.8	(*)	(*)	(*)
1975	82.4	68.9	16.4	69.3	36.9	46.7	(*)	(*)	(*)
1976	86.4	73.2	15.3	72.7	38.5	47.0	(*)	(*)	(*)
1977	87.3	76.1	12.8	74.4	43.3	41.8	81.6	65.8	(*)
1978	88.0	79.1	10.2	75.7	45.9	39.3	83.3	69.2	(*)
1979	88.9	76.4	14.0	71.8	44.1	38.5	82.4	69.4	(*)
1980	87.6	74.6	14.8	72.0	35.0	51.4	(*)	(*)	(*)
1981	87.4	73.0	16.4	69.0	31.5	54.3	(*)	(*)	(*)
1982	85.5	68.5	19.9	69.4	29.4	57.6	75.5	43.9	(*)
1983	85.9	69.8	18.8	75.9	34.9	54.1	(*)	(*)	(*)
1984	86.2	70.7	18.0	73.2	44.8	38.7	78.8	49.0	37.8
1985	85.0	71.0	16.5	76.6	34.4	55.1	(*)	(*)	(*)
1986	85.3	71.5	16.2	67.4	41.0	39.1	81.9	64.9	20.8
1987	87.8	75.3	14.3	73.8	46.9	36.4	69.2	53.8	22.2
1988	88.1	78.2	11.3	73.5	55.5	24.5	81.8	57.1	(*)
1989	88.3	77.6	12.1	71.0	53.5	24.5	74.7	49.3	(*)
1990	88.2	75.1	14.8	69.9	44.9	35.8	(*)	(*)	(*)
1991	84.4	67.1	20.6	67.5	32.5	51.8	(*)	(*)	(*)
1992	83.1	71.9	13.5	61.2	37.2	39.3	70.8	53.9	(*)
1993	90.0	71.9	20.1	64.4	42.2	34.5	81.6	43.4	(*)

* Too few sample observations for a reliable estimate.

NOTE: Recent high school graduates are individuals aged 16–24 who graduated in the year of the survey. The labor force participation rate is the percent of the population either employed or unemployed. The employment rate is the percent of the population employed. The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. See supplemental note to this indicator for a comparison of these labor force statistics.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 28-4 Rates of labor force participation, employment, and unemployment of recent school dropouts not enrolled in college, by sex: October 1973–93

	White			Black			Hispanic		
October	Labor force partici-pation	Employ-ment	Unem-ployment	Labor force partici-pation	Employ-ment	Unem-ployment	Labor force partici-pation	Employ-ment	Unem-ployment
1973	71.0	55.1	22.4	59.4	43.9	26.1	(*)	(*)	(*)
1974	73.8	53.9	27.0	58.1	35.9	38.1	(*)	(*)	(*)
1975	65.4	46.2	29.3	56.1	22.0	(*)	59.5	46.8	(*)
1976	68.9	49.7	27.9	44.8	20.8	(*)	(*)	(*)	(*)
1977	74.8	56.6	24.3	58.6	34.5	41.2	(*)	(*)	(*)
1978	75.2	54.2	27.9	59.5	41.1	30.9	70.7	50.7	(*)
1979	70.5	54.2	23.0	51.7	27.6	46.7	(*)	(*)	(*)
1980	69.8	51.2	26.7	51.5	20.8	(*)	66.3	47.7	(*)
1981	71.2	51.2	28.0	46.8	11.5	(*)	76.8	50.0	(*)
1982	69.5	44.5	36.0	58.2	16.4	(*)	(*)	(*)	(*)
1983	65.4	49.4	24.4	59.8	26.5	(*)	(*)	(*)	(*)
1984	71.9	51.3	28.6	55.4	23.8	(*)	53.6	35.7	(*)
1985	74.4	50.0	32.8	53.7	29.3	(*)	68.8	37.6	(*)
1986	69.6	50.5	27.4	60.5	31.6	(*)	60.8	46.4	23.7
1987	69.9	48.1	31.1	61.3	26.1	(*)	(*)	(*)	(*)
1988	65.1	47.6	27.0	35.7	17.3	(*)	64.4	55.4	(*)
1989	74.4	57.6	22.6	51.8	26.3	(*)	(*)	(*)	(*)
1990	74.8	56.2	24.9	65.9	30.5	(*)	(*)	(*)	(*)
1991	61.6	38.4	37.6	52.7	24.7	(*)	(*)	(*)	(*)
1992	62.6	43.2	30.9	50.8	(*)	(*)	50.0	28.8	(*)
1993	68.0	52.8	22.4	43.6	26.9	(*)	(*)	(*)	(*)

* Too few sample observations for a reliable estimate.

NOTE: Recent school dropouts are individuals aged 16–24 who were not high school graduates, who were in school 12 months earlier, but who were not enrolled during the survey month. The labor force participation rate is the percent of the population either employed or unemployed. The employment rate is the percent of the population employed. The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. See supplemental note to this indicator for a comparison of these labor force statistics.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 28-5 Rates of labor force participation, employment, and unemployment of recent high school graduates not enrolled in college, by family income: October 1973–93

October	Low income			Middle income			High income		
	Labor force partici-pation	Employ-ment	Unem-ployment	Labor force partici-pation	Employ-ment	Unem-ployment	Labor force partici-pation	Employ-ment	Unem-ployment
1973	66.2	54.2	18.0	82.7	72.5	12.3	85.2	77.5	9.0
1975	68.8	51.7	24.8	82.5	65.7	20.4	86.0	72.0	16.3
1976	74.3	50.3	32.3	84.5	69.7	17.5	87.2	74.6	14.4
1977	75.4	56.3	25.4	86.4	72.1	16.5	89.7	81.7	8.9
1978	80.9	59.5	26.4	85.7	74.3	13.3	90.0	80.9	10.1
1979	84.7	67.9	19.8	85.6	69.8	18.5	90.1	80.5	10.7
1980	81.6	56.6	30.6	85.0	70.2	17.4	87.3	74.0	15.2
1981	72.4	53.2	26.5	84.8	64.5	23.9	87.9	76.9	12.5
1982	71.4	44.4	37.7	84.7	61.3	27.6	81.8	70.0	14.5
1983	79.6	48.8	38.7	85.2	65.6	23.0	86.1	65.3	24.1
1984	71.0	51.7	27.2	85.1	65.4	23.2	87.9	72.0	18.1
1985	79.2	47.4	40.1	82.3	61.7	25.0	84.4	74.7	11.5
1986	77.3	57.2	26.0	81.0	63.9	21.2	86.5	77.3	10.7
1987	74.1	56.7	23.5	84.0	67.6	19.6	92.2	83.7	9.3
1988	75.4	55.8	26.0	85.3	73.2	14.2	90.9	82.3	9.5
1989	78.8	60.0	23.9	84.1	72.2	14.1	89.2	78.3	12.1
1990	77.9	49.0	37.1	85.0	71.3	16.1	87.9	72.1	17.9
1991	71.8	48.6	32.3	81.7	59.0	27.8	82.4	73.3	11.0
1992	60.5	44.2	27.0	82.5	67.7	18.0	79.5	67.5	15.0
1993	78.8	60.9	22.7	84.0	63.7	24.1	90.8	69.7	23.3

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent of family income in-between. Recent high school graduates are individuals aged 16–24 who graduated in the year of the survey. The labor force participation rate is the percent of the population either employed or unemployed. The employment rate is the percent of the population employed. The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. See supplemental note to this indicator for a comparison of these labor force statistics.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 28-6 Rates of labor force participation, employment, and unemployment of recent school dropouts not enrolled in college, by family income: October 1973–93

October	Low income			Middle income			High income		
	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment	Labor force participation	Employment	Unemployment
1973	58.9	46.9	20.3	69.0	53.6	22.3	(*)	(*)	(*)
1975	51.5	33.3	35.3	66.9	45.3	32.2	72.0	46.2	(*)
1976	56.0	33.5	40.2	66.7	47.7	28.4	71.1	55.3	(*)
1977	65.8	44.4	32.6	71.9	53.4	25.7	84.0	67.9	(*)
1978	61.9	42.6	31.1	71.9	52.9	26.4	87.6	59.3	32.3
1979	50.0	26.3	47.5	69.7	54.4	22.0	84.8	70.4	17.0
1980	52.3	29.8	43.0	68.0	47.8	29.7	84.8	65.2	23.1
1981	58.0	27.6	52.4	68.2	43.8	35.8	75.3	64.0	(*)
1982	57.2	27.9	51.2	70.4	40.8	42.1	(*)	(*)	(*)
1983	47.9	28.2	41.2	69.3	46.1	33.5	(*)	(*)	(*)
1984	55.4	29.2	47.3	68.4	47.8	30.1	(*)	(*)	(*)
1985	58.9	29.2	50.4	74.7	51.0	31.7	(*)	(*)	(*)
1986	62.0	39.6	36.2	68.3	50.7	25.9	(*)	(*)	(*)
1987	60.5	24.7	59.2	69.6	47.8	31.4	(*)	(*)	(*)
1988	51.2	36.6	28.4	63.8	45.8	28.1	(*)	(*)	(*)
1989	58.6	35.9	38.8	68.8	51.7	24.9	(*)	(*)	(*)
1990	61.1	30.6	50.0	70.5	53.5	24.1	(*)	(*)	(*)
1991	51.1	27.0	(*)	65.7	42.3	35.7	(*)	(*)	(*)
1992	41.5	20.4	(*)	68.9	42.5	38.2	(*)	(*)	(*)
1993	56.4	37.1	34.2	67.7	53.4	21.2	(*)	(*)	(*)

* Too few sample observations for a reliable estimate.

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent of family income in-between. Recent school dropouts are individuals aged 16–24 who were not high school graduates, who were in school 12 months earlier, but who were not enrolled during the survey month. The labor force participation rate is the percent of the population either employed or unemployed. The employment rate is the percent of the population employed. The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. See supplemental note to this indicator for a comparison of these labor force statistics.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Note on Labor Force Statistics

The Bureau of Labor Statistics uses three categories to classify the labor force status of an individual: employed, unemployed, and not in the labor force.

An *employed* individual is someone who has a job and is working. Also included are those who are not working but who have jobs from which they are temporarily absent because of illness, vacation, labor-management disputes, bad weather, and personal reasons. Those in the military are also counted as employed. An *unemployed* individual is someone without a job, who is available for work, and who has made specific efforts to find employment some time during the prior 4 weeks. Also included are persons waiting to be recalled to a job from which they had been laid off or who are waiting to report to a new job within 30 days. Individuals who are neither employed nor unemployed are *not in the labor force.*

The *labor force* comprises all persons classified as employed or unemployed. The *unemployment rate* represents the number unemployed as a percent of the labor force. The *labor force participation rate* is the ratio of the labor force to the population. The *employment-population* ratio is the percentage of employed individuals in the population. We refer to the last statistic as the *employment rate* in *Indicator 28.*

Each of these statistics is typically reported in two forms, one that includes the military, and one that excludes them. For instance, the *civilian employment-population ratio* is the percentage of all employed civilians in the civilian noninstitutional population. The *civilian labor force participation rate* is the ratio of the civilian labor force to the civilian noninstitutional population. The labor force statistics reported in *Indicator 28* and its associated supplemental tables are all for the civilian noninstitutional population. *Indicator 28* reports the form that excludes the military.

Each of these measures can be computed for groups classified by age, sex, race, Hispanic origin, and so on.

Further elaboration on these labor force statistics is available in the explanatory notes of *Employment and Earnings,* published monthly by the Bureau of Labor Statistics of the U.S. Department of Labor.

Table 29-1 Percentage of the labor force* who were unemployed, by sex, educational attainment, and age: March 1994

	Male					Female				
Age	Total	Grades 9 to 11	High school diploma	Some college	Bachelor's degree	Total	Grades 9 to 11	High school diploma	Some college	Bachelor's degree
20-24	12.3	20.0	13.8	10.9	4.6	9.5	33.1	11.8	6.0	2.4
25-29	7.8	16.9	9.0	6.1	2.9	7.1	19.9	8.9	5.6	3.4
30-34	6.9	16.4	7.7	6.8	1.8	6.6	15.0	7.3	5.8	3.9
35-39	6.6	15.8	7.6	6.2	2.8	6.3	14.5	7.2	5.4	3.2
40-44	6.2	13.0	8.9	4.9	3.6	4.2	12.3	5.0	3.6	2.1
45-49	4.4	8.0	5.0	3.4	2.5	4.1	6.0	5.2	3.1	2.1
50-54	4.6	10.5	4.6	3.6	2.7	4.2	5.6	4.0	4.2	3.0
55-59	5.3	7.1	5.0	5.2	3.6	4.0	7.0	4.4	2.9	1.7
60-64	6.1	11.1	5.0	3.5	4.8	5.9	6.9	6.0	5.5	2.8

* Noninstitutionalized civilians.

NOTE: The labor force are those who are either employed or unemployed. The unemployed are those without a job and looking for work. Included in the total but not shown separately are those who have attained 8 or fewer years of schooling. Grades 9 to 11 include those who have attended 12th grade but have not received a diploma; high school diploma includes those who have received an equivalency certificate; some college includes those who have received an associate's degree; bachelor's degree includes those who have received advanced degrees.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Survey, 1994.

Table 30-1 Median annual earnings of male wage and salary workers 25 to 34 years old with 9–11, 13–15, and 16 or more years of school, by race/ethnicity: 1970–93 (in 1994 constant dollars)

	9-11 years of school				13-15 years of school				16 or more years of school			
Year	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic
					All wage and salary workers							
1970	$26,894	$28,289	$18,503	$25,996	$35,472	$35,066	$31,470	(*)	$39,889	$39,691	(*)	(*)
1971	27,512	28,377	18,947	22,840	34,462	34,154	28,768	(*)	39,871	39,484	$35,464	(*)
1972	27,270	29,185	19,522	24,229	35,257	34,732	30,206	$30,651	40,455	40,143	37,295	(*)
1973	28,950	30,674	21,218	22,119	34,766	34,613	28,816	29,788	40,247	39,652	34,905	(*)
1974	25,824	27,639	20,463	22,433	32,546	33,272	27,500	29,503	36,618	37,261	30,411	(*)
1975	23,166	24,985	16,705	20,203	31,611	32,409	26,803	27,200	34,548	34,902	30,862	(*)
1976	23,433	24,654	18,107	24,330	30,956	31,897	24,523	26,608	35,574	35,873	33,234	(*)
1977	23,243	25,225	17,741	22,001	30,834	31,955	26,192	24,763	35,484	35,836	31,866	(*)
1978	23,206	25,149	17,192	21,972	31,716	32,223	31,067	27,211	35,697	35,807	33,998	$34,124
1979	22,591	24,669	17,598	20,017	31,417	32,271	26,488	28,330	34,500	34,699	30,232	29,884
1980	20,317	22,011	15,378	20,675	28,834	29,659	23,772	27,179	32,957	33,506	27,550	28,764
1981	18,906	20,024	13,843	19,635	27,447	28,388	22,760	24,777	33,343	33,767	28,236	26,698
1982	17,040	17,956	14,161	15,647	26,742	27,926	19,130	23,861	32,104	32,445	27,785	30,859
1983	16,889	18,373	11,349	15,813	27,252	28,220	22,999	24,843	32,583	33,053	25,878	29,101
1984	15,608	16,495	10,786	17,190	28,434	29,467	20,090	25,106	33,493	34,540	26,998	28,701
1985	16,715	18,318	12,963	16,419	28,186	29,297	21,006	24,700	35,571	35,959	32,841	35,339
1986	16,550	17,610	14,441	16,737	28,096	29,351	21,879	25,627	35,857	36,490	27,984	36,114
1987	17,499	19,371	14,264	15,467	27,409	28,322	21,477	23,967	35,973	37,512	24,849	33,025
1988	16,778	18,951	10,809	14,779	27,206	28,218	21,542	23,241	35,092	37,074	26,551	27,454
1989	16,856	18,889	11,188	14,678	27,128	28,217	22,143	24,138	35,036	36,516	25,924	25,357
1990	16,054	17,714	12,703	14,156	25,898	27,281	22,227	23,898	33,412	34,239	29,258	30,487
1991	14,194	16,369	11,402	13,333	25,130	26,942	19,387	23,110	33,626	34,298	25,643	28,025
1992	14,303	16,442	9,979	13,134	23,844	25,258	20,092	21,746	33,670	34,799	28,273	28,071
1993	13,961	16,205	10,715	12,437	23,435	24,859	19,047	20,170	32,708	33,569	27,135	27,386
					Year-round, full-time wage and salary workers							
1970	$29,001	$30,593	$21,578	$27,670	$37,409	$37,903	$33,407	(*)	$42,709	$42,917	(*)	(*)
1971	28,949	30,719	22,782	24,222	36,916	37,495	33,650	(*)	42,259	42,662	(*)	(*)
1972	29,864	31,805	22,560	27,290	37,540	38,343	32,082	(*)	42,950	43,232	$38,941	(*)
1973	30,545	33,007	23,063	(*)	36,710	37,363	32,456	$33,874	43,121	43,676	37,580	(*)
1974	29,458	30,665	24,658	(*)	35,119	35,665	31,083	32,513	40,647	41,112	35,048	(*)
1975	28,079	29,416	21,500	(*)	35,308	36,218	30,171	30,787	38,784	39,073	32,659	(*)
1976	27,511	29,061	22,278	26,909	35,187	35,722	30,053	32,712	39,247	39,324	36,135	(*)
1977	27,471	26,120	19,091	(*)	34,908	32,159	26,790	27,337	38,889	34,695	28,999	(*)
1978	26,875	28,429	21,302	24,848	35,127	35,394	34,584	29,661	38,908	39,018	36,851	(*)
1979	26,514	29,052	20,816	23,478	34,352	35,105	28,830	32,881	37,829	37,818	36,393	(*)
1980	24,128	27,052	16,839	24,050	32,030	32,866	26,528	30,734	36,382	36,697	29,881	$32,188
1981	23,615	25,272	17,550	23,192	31,603	32,416	25,988	31,029	36,535	36,754	32,448	34,117
1982	22,903	24,378	18,267	19,197	31,281	32,033	24,260	26,787	35,135	35,631	31,227	33,721
1983	21,609	23,211	15,803	20,352	31,215	31,911	25,725	27,759	36,725	37,153	31,588	31,901
1984	21,715	23,540	15,288	22,899	31,598	32,620	25,144	28,841	37,130	37,462	30,223	33,522
1985	21,592	23,189	15,672	20,231	31,310	32,821	23,632	31,342	37,906	38,647	35,486	38,081
1986	21,615	23,132	16,301	21,084	31,698	33,340	25,543	28,088	39,522	40,326	31,865	39,545
1987	22,401	24,070	18,477	18,922	30,488	31,511	24,137	29,065	39,772	40,477	30,663	36,557
1988	21,465	23,248	17,464	19,130	31,384	32,580	26,386	26,715	38,934	39,546	27,786	32,161
1989	21,011	22,880	16,339	19,414	30,514	31,526	24,849	26,668	38,274	39,582	27,991	31,435
1990	19,830	22,036	15,574	18,466	29,562	30,487	25,735	26,479	36,142	36,619	30,825	35,396
1991	19,276	21,753	14,886	17,607	28,858	29,569	23,747	27,064	38,325	38,988	29,868	34,540
1992	18,410	21,557	16,456	15,434	28,067	28,594	25,351	25,580	37,745	38,526	31,965	30,382
1993	18,368	20,969	14,921	16,127	26,757	27,541	22,970	23,211	37,065	37,778	28,217	31,134

* Too few cases for a reliable estimate.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 30-2 Median annual earnings of female wage and salary workers 25 to 34 years old with 9–11, 13–15, and 16 or more years of school, by race/ethnicity: 1970–93 (in 1994 constant dollars)

	9-11 years of school				13-15 years of school				16 or more years of school			
Year	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic
All wage and salary workers												
1970	$11,041	$7,723	$7,189	(*)	$18,913	$14,511	$18,266	(*)	$26,831	$23,305	$28,983	(*)
1971	11,882	8,689	8,327	(*)	18,790	14,775	18,791	(*)	27,164	24,811	27,704	(*)
1972	11,655	7,819	10,912	(*)	19,255	16,083	17,223	(*)	26,940	24,400	27,833	(*)
1973	11,454	9,300	10,032	(*)	19,812	16,815	19,844	(*)	26,644	24,238	26,385	(*)
1974	8,474	7,898	9,282	$9,649	16,275	15,744	18,988	(*)	23,668	23,520	25,165	(*)
1975	8,757	8,450	9,166	(*)	16,886	16,340	19,776	(*)	23,483	23,070	26,035	(*)
1976	8,687	7,858	9,525	11,630	16,215	15,932	19,035	$15,494	22,553	22,196	26,009	(*)
1977	9,072	8,450	10,019	10,913	17,764	17,608	19,009	16,244	22,197	21,796	25,838	(*)
1978	7,617	7,676	7,788	7,055	16,493	16,091	19,729	15,318	21,941	21,741	22,761	(*)
1979	10,071	10,117	9,826	9,572	17,053	17,101	18,608	16,364	22,208	22,196	22,638	(*)
1980	9,155	8,742	10,276	9,795	17,627	17,745	17,696	15,269	21,581	21,446	23,278	(*)
1981	8,481	8,253	7,859	10,932	17,043	16,969	17,150	18,193	21,352	21,199	22,148	$22,254
1982	8,985	8,542	9,630	10,921	16,292	16,092	16,824	17,475	22,020	21,854	22,956	20,962
1983	9,085	8,766	9,644	8,922	16,944	17,054	16,297	17,614	22,784	22,688	23,495	22,386
1984	8,050	8,155	7,439	8,709	17,298	17,077	17,794	17,860	23,012	22,922	23,804	22,646
1985	8,975	8,776	8,600	10,195	16,876	17,302	15,420	15,646	24,176	24,175	23,461	24,102
1986	9,213	8,960	9,998	8,235	17,301	17,418	16,407	18,400	25,368	25,251	25,068	24,340
1987	9,828	10,616	7,637	9,710	18,245	18,054	18,322	19,725	25,995	25,800	26,513	26,718
1988	8,019	7,524	8,250	9,124	18,769	19,088	17,730	16,209	25,966	26,171	25,807	24,154
1989	8,650	9,068	6,222	9,910	18,200	18,281	18,097	17,580	26,620	26,607	25,572	27,767
1990	7,876	7,873	5,533	8,977	18,290	18,691	16,316	18,201	26,287	26,523	26,252	23,623
1991	8,540	8,539	6,658	8,905	17,696	18,146	15,442	17,326	25,436	25,974	23,338	21,611
1992	10,103	10,586	7,990	10,260	17,732	18,155	15,397	17,546	26,443	26,557	25,200	25,356
1993	7,674	7,440	6,181	8,897	17,157	17,532	15,395	16,392	26,043	26,462	23,176	23,181
Year-round, full-time wage and salary workers												
1970	$16,660	$17,304	$14,887	(*)	$23,638	$23,738	$23,627	(*)	$30,527	$30,306	(*)	(*)
1971	16,409	16,958	15,217	(*)	23,720	23,517	(*)	(*)	29,782	29,926	$29,338	(*)
1972	17,044	17,903	15,781	(*)	24,838	25,242	(*)	(*)	30,385	30,443	29,292	(*)
1973	18,018	18,727	15,161	(*)	24,891	25,163	23,796	(*)	30,236	30,152	31,098	(*)
1974	15,994	16,462	14,209	(*)	23,454	23,447	22,740	(*)	28,309	28,539	26,305	(*)
1975	16,052	15,894	15,536	(*)	23,395	23,464	23,633	(*)	28,266	28,443	26,818	(*)
1976	16,294	17,586	14,874	(*)	23,331	23,610	22,400	(*)	28,452	28,384	28,827	(*)
1977	16,757	14,113	13,795	(*)	23,669	20,835	20,985	(*)	27,590	25,256	23,813	(*)
1978	17,292	17,784	15,866	(*)	22,866	22,847	23,039	(*)	26,930	26,963	25,162	(*)
1979	16,636	17,016	16,400	(*)	22,925	23,067	22,443	(*)	26,670	26,839	24,715	(*)
1980	15,631	16,001	15,531	(*)	21,838	22,024	20,476	$21,793	26,814	26,948	26,013	(*)
1981	14,571	14,605	(*)	(*)	21,880	22,267	20,537	22,124	26,826	26,996	24,916	(*)
1982	15,462	15,354	16,790	(*)	22,251	22,530	21,654	20,185	26,522	26,765	24,664	(*)
1983	14,934	14,896	(*)	(*)	23,022	23,405	21,597	21,956	26,515	26,810	24,608	$25,018
1984	15,460	16,315	12,280	(*)	22,435	22,854	20,189	21,615	27,807	27,946	26,680	28,035
1985	15,390	15,922	(*)	(*)	22,719	23,383	19,359	22,686	29,002	29,434	25,210	28,428
1986	15,591	16,355	14,404	(*)	22,644	23,243	19,898	22,054	29,719	29,987	27,223	27,485
1987	15,403	15,580	(*)	(*)	23,175	23,262	22,879	22,762	29,134	29,615	27,289	29,027
1988	13,842	14,099	13,096	(*)	23,382	23,688	22,444	25,383	30,140	30,790	27,435	29,039
1989	14,467	14,702	(*)	$13,114	23,013	23,459	21,720	22,622	30,915	31,029	28,585	30,692
1990	14,305	15,623	(*)	12,562	22,793	23,328	20,135	20,821	30,458	30,700	29,226	27,621
1991	13,170	13,676	11,428	(*)	22,607	23,116	20,276	22,814	29,611	29,943	25,620	26,481
1992	14,283	15,594	13,711	(*)	22,383	22,834	19,650	22,981	29,843	29,961	28,573	28,133
1993	13,747	13,729	(*)	14,041	21,839	22,409	19,474	21,303	30,778	31,176	26,550	26,508

* Too few cases for a reliable estimate.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 30-3 Median annual earnings of wage and salary workers 25 to 34 years old with 12 years of school, by sex and race/ethnicity: 1970–93 (in 1994 constant dollars)

	Male				Female			
Year	All	White	Black	Hispanic	All	White	Black	Hispanic
All wage and salary workers								
1970	$32,109	$32,680	$23,831	$28,484	$15,934	$12,847	$13,902	$13,796
1971	32,483	32,882	24,418	27,160	16,299	13,513	13,027	13,017
1972	33,895	34,480	26,075	30,505	16,577	14,005	13,740	14,306
1973	34,498	34,814	27,894	28,384	16,213	13,466	14,333	14,931
1974	31,992	32,700	27,302	30,182	13,629	13,268	14,928	16,080
1975	29,575	30,387	24,877	26,793	13,625	13,177	15,393	14,495
1976	29,938	30,859	22,651	27,211	14,258	13,805	16,373	13,855
1977	30,135	31,650	22,923	25,688	14,495	14,237	15,842	14,356
1978	30,332	31,798	23,354	27,182	14,154	13,754	16,353	14,185
1979	29,760	31,285	22,522	24,383	14,293	14,177	15,047	14,368
1980	27,663	28,768	20,357	22,368	14,193	14,252	14,221	13,756
1981	25,766	26,803	20,129	21,638	13,836	13,694	14,099	14,498
1982	23,945	24,995	18,431	21,167	13,513	13,376	13,916	13,648
1983	24,083	25,335	17,532	21,926	13,665	13,490	14,811	13,010
1984	24,666	26,591	16,494	22,426	14,274	14,267	14,098	14,394
1985	23,730	25,514	18,735	19,448	14,321	14,557	13,162	14,051
1986	23,837	25,568	16,540	20,205	14,249	14,437	12,765	14,595
1987	24,201	26,157	16,639	21,034	14,592	14,801	13,777	14,369
1988	24,784	26,074	19,393	21,110	14,340	14,697	13,383	14,167
1989	24,165	25,374	18,402	19,600	13,806	14,115	12,456	13,690
1990	22,630	24,176	17,574	18,296	13,678	14,018	12,554	12,426
1991	22,030	23,507	16,711	17,592	13,391	13,782	11,822	13,445
1992	21,018	22,494	15,436	18,143	13,219	13,704	11,810	12,806
1993	20,870	22,128	16,295	17,102	13,075	13,975	10,403	12,727
Year-round, full-time wage and salary workers								
1970	$33,564	$34,381	$26,798	$29,942	$21,072	$21,468	$18,643	(*)
1971	33,921	34,614	27,250	30,629	20,806	20,859	20,357	(*)
1972	35,152	36,065	27,670	31,384	21,393	21,621	20,216	$21,743
1973	35,618	36,283	30,371	31,579	20,861	20,943	20,675	21,391
1974	33,881	34,357	30,815	32,747	20,563	20,548	20,547	20,983
1975	32,543	33,051	29,570	29,397	20,638	20,560	21,113	19,964
1976	32,435	33,157	27,682	29,916	20,875	21,056	20,401	20,129
1977	33,326	29,347	26,256	26,102	21,204	18,256	18,747	17,727
1978	34,251	34,780	29,167	32,034	20,942	21,206	20,309	20,124
1979	32,801	33,786	26,572	28,131	20,284	20,587	18,938	18,915
1980	30,454	31,206	24,735	26,039	20,008	20,244	19,031	19,271
1981	29,174	30,130	25,226	25,065	19,185	19,383	18,850	18,018
1982	28,168	29,338	23,329	25,091	18,828	18,985	18,001	18,700
1983	28,376	29,755	21,097	25,020	19,016	19,333	18,128	18,325
1984	29,191	30,339	20,296	26,600	19,407	19,977	17,377	18,778
1985	27,676	29,174	22,006	22,664	19,670	20,215	16,885	19,149
1986	27,726	28,913	21,858	24,791	19,610	19,953	16,751	21,088
1987	27,787	28,957	20,796	25,383	19,846	20,236	17,751	19,404
1988	27,369	28,449	21,238	24,732	19,391	19,978	16,834	18,746
1989	26,254	27,477	21,803	22,742	19,267	19,483	17,829	18,736
1990	25,119	27,087	19,490	21,136	18,605	19,035	16,257	16,625
1991	24,512	26,204	18,839	21,500	19,018	19,461	17,234	18,376
1992	24,058	25,498	18,201	21,122	18,740	19,249	17,553	18,673
1993	23,079	24,683	19,072	20,203	18,421	19,461	15,056	17,061

* Too few cases for a reliable estimate.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 30-4 Ratio of median annual earnings of wage and salary workers 25 to 34 years old with 9–11, 13–15, and 16 or more years of school to those with 12 years of school, by sex: 1970–93

	9-11 years of school		13-15 years of school		16 or more years of school	
Year	Male	Female	Male	Female	Male	Female
1970	0.84	0.69	1.10	1.19	1.24	1.68
1971	0.85	0.73	1.06	1.15	1.23	1.67
1972	0.80	0.70	1.04	1.16	1.19	1.63
1973	0.84	0.71	1.01	1.22	1.17	1.64
1974	0.81	0.62	1.02	1.19	1.14	1.74
1975	0.78	0.64	1.07	1.24	1.17	1.72
1976	0.78	0.61	1.03	1.14	1.19	1.58
1977	0.77	0.63	1.02	1.23	1.18	1.53
1978	0.77	0.54	1.05	1.17	1.18	1.55
1979	0.76	0.70	1.06	1.19	1.16	1.55
1980	0.73	0.65	1.04	1.24	1.19	1.52
1981	0.73	0.61	1.07	1.23	1.29	1.54
1982	0.71	0.66	1.12	1.21	1.34	1.63
1983	0.70	0.66	1.13	1.24	1.35	1.67
1984	0.63	0.56	1.15	1.21	1.36	1.61
1985	0.70	0.63	1.19	1.18	1.50	1.69
1986	0.69	0.65	1.18	1.21	1.50	1.78
1987	0.72	0.67	1.13	1.25	1.49	1.78
1988	0.68	0.56	1.10	1.31	1.42	1.81
1989	0.70	0.63	1.12	1.32	1.45	1.93
1990	0.71	0.58	1.14	1.34	1.48	1.92
1991	0.64	0.64	1.14	1.32	1.53	1.90
1992	0.68	0.76	1.13	1.34	1.60	2.00
1993	0.67	0.59	1.12	1.31	1.57	1.99

NOTE: The ratio is most usefully compared to 1.0. For example, the ratio of 1.57 in 1993 for males with 16 of more years of school means that they earned 57 percent more than males with 12 years of school. The ratio of 0.67 in 1993 for males with 9-11 years of school means that they earned 33 percent less than males with 12 years of school.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 31-1 Average annual earnings of employed 25- to 64-year-olds in the previous year, by sex, literacy domain, literacy proficiency level, and highest level of education attained: 1992

Highest education level	Male						Female					
	Literacy level						Literacy level					
	Total	1	2	3	4	5	Total	1	2	3	4	5
							Prose literacy					
Total	**$29,175**	**$15,755**	**$22,046**	**$29,610**	**$39,941**	**$48,965**	**$17,090**	**$9,650**	**$13,260**	**$16,759**	**$21,882**	**$28,707**
Grade 1-8	12,941	12,160	14,697	16,151	—	—	8,009	7,584	8,493	—	—	—
Grade 9-11	18,194	16,299	17,763	21,402	—	—	11,145	8,979	11,141	14,304	—	—
GED or equivalent	21,672	—	20,979	23,741	—	—	11,754	—	10,784	12,081	—	—
High school diploma	22,494	16,417	20,866	24,997	26,825	—	13,554	10,510	12,579	14,565	14,686	—
Some postsecondary*	27,279	19,306	24,402	26,654	32,544	—	16,449	11,756	14,540	16,266	18,245	23,038
Associate's degree	31,855	—	29,161	31,615	34,729	—	19,547	—	15,103	20,053	20,603	—
Bachelor's degree	38,115	—	30,105	37,393	38,793	44,140	23,592	—	22,907	20,546	24,447	28,939
Graduate degree	55,781	—	—	49,074	59,774	61,826	29,758	—	—	25,671	31,033	35,091
							Document literacy					
Total	**$29,175**	**$16,514**	**$23,246**	**$30,847**	**$39,163**	**$44,668**	**$17,090**	**$10,315**	**$14,000**	**$17,680**	**$22,197**	**$27,998**
Grade 1-8	12,941	12,189	14,832	—	—	—	8,009	7,642	7,831	—	—	—
Grade 9-11	18,194	16,366	18,690	20,412	—	—	11,145	9,321	11,779	13,221	—	—
GED or equivalent	21,672	—	21,477	22,317	—	—	11,754	—	11,509	12,073	—	—
High school diploma	22,494	16,476	21,657	24,914	26,148	—	13,554	10,746	12,766	14,803	14,932	—
Some postsecondary*	27,279	21,727	23,718	27,935	30,300	—	16,449	13,391	14,849	16,509	18,303	—
Associate's degree	31,855	—	32,355	29,675	34,809	—	19,547	—	18,603	19,785	20,073	—
Bachelor's degree	38,115	—	34,041	37,960	38,484	41,323	23,592	—	21,158	21,853	25,250	27,654
Graduate degree	55,781	—	42,106	53,126	60,283	54,587	29,758	—	23,886	29,028	30,508	33,867
							Quantitative literacy					
Total	**$29,175**	**$14,909**	**$21,658**	**$28,989**	**$37,728**	**$48,310**	**$17,090**	**$10,265**	**$14,017**	**$17,311**	**$21,818**	**$28,360**
Grade 1-8	12,941	12,298	13,993	—	—	—	8,009	7,426	—	—	—	—
Grade 9-11	18,194	15,034	18,372	21,639	—	—	11,145	8,886	11,504	14,296	—	—
GED or equivalent	21,672	—	19,826	23,976	—	—	11,754	—	11,046	12,378	—	—
High school diploma	22,494	15,662	20,751	24,389	26,397	—	13,554	11,235	12,711	14,341	15,610	—
Some postsecondary*	27,279	18,819	23,256	26,299	31,373	35,018	16,449	13,002	14,945	16,528	18,045	20,301
Associate's degree	31,855	—	28,304	30,891	35,022	—	19,547	—	18,607	20,121	18,833	—
Bachelor's degree	38,115	—	29,825	36,227	38,585	45,180	23,592	—	21,341	21,111	25,308	28,522
Graduate degree	55,781	—	34,114	51,252	57,395	63,133	29,758	—	22,537	26,620	30,782	36,518

— Too few cases for a reliable estimate.

* Includes those who attended vocational schools, less than 2 years of college, and more than 2 years of college without earning a degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table 31-2 Average weekly earnings of employed 25- to 64-year-olds in the previous year, by sex, literacy domain, literacy proficiency level, and highest level of education attained: 1992

Highest education level	Male						Female					
		Literacy level						Literacy level				
	Total	1	2	3	4	5	Total	1	2	3	4	5
							Prose literacy					
Total	**$612**	**$364**	**$471**	**$606**	**$811**	**$1,007**	**$407**	**$237**	**$320**	**$395**	**$524**	**$672**
Grade 1-8	313	297	—	—	—	—	211	195	—	—	—	—
Grade 9-11	407	385	403	447	—	—	281	238	278	341	—	—
GED or equivalent	462	—	442	496	—	—	280	—	257	289	—	—
High school diploma	469	366	445	505	538	—	322	251	297	343	370	—
Some postsecondary*	570	408	508	559	674	—	387	274	350	380	431	—
Associate's degree	627	—	529	607	725	—	453	—	—	454	490	—
Bachelor's degree	764	—	606	736	785	883	558	—	519	501	583	656
Graduate degree	1,145	—	—	1,041	1,201	1,282	687	—	—	595	718	826
							Document literacy					
Total	**$612**	**$381**	**$492**	**$629**	**$800**	**$907**	**$407**	**$252**	**$340**	**$421**	**$516**	**$645**
Grade 1-8	313	299	—	—	—	—	211	194	—	—	—	—
Grade 9-11	407	383	423	418	—	—	281	249	287	319	—	—
GED or equivalent	462	—	445	476	—	—	280	—	270	292	—	—
High school diploma	469	371	454	504	531	—	322	256	304	351	353	—
Some postsecondary*	570	467	499	578	632	—	387	329	356	387	424	—
Associate's degree	627	—	560	600	724	—	453	—	431	457	473	—
Bachelor's degree	764	—	682	755	776	819	558	—	512	538	584	628
Graduate degree	1,145	—	—	1,099	1,223	1,119	687	—	—	678	700	800
							Quantitative literacy					
Total	**$612**	**$343**	**$468**	**$595**	**$767**	**$964**	**$407**	**$251**	**$338**	**$411**	**$509**	**$675**
Grade 1-8	313	300	—	—	—	—	211	192	—	—	—	—
Grade 9-11	407	345	429	455	—	—	281	234	292	332	—	—
GED or equivalent	462	—	418	502	—	—	280	—	273	291	—	—
High school diploma	469	349	437	503	524	—	322	265	301	344	366	—
Some postsecondary*	570	397	499	551	646	706	387	306	359	388	420	—
Associate's degree	627	—	543	587	711	—	453	—	391	473	448	—
Bachelor's degree	764	—	612	728	771	893	558	—	484	517	596	653
Graduate degree	1,145	—	—	1,033	1,194	1,264	687	—	—	627	702	868

— Too few cases for a reliable estimate.

* Includes those who attended vocational schools, less than 2 years of college, and more than 2 years of college without earning a degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table 31-3 Unemployment rate of 25- to 64-year-olds, by sex, literacy domain, literacy proficiency level, and highest level of education attained: 1992

Highest education level	Male						Female					
	Literacy level						Literacy level					
	Total	1	2	3	4	5	Total	1	2	3	4	5
Prose literacy												
Total	**8.3**	**14.9**	**11.5**	**6.4**	**4.1**	**2.3**	**8.5**	**17.3**	**12.7**	**6.7**	**4.0**	**2.3**
Grade 1-8	20.3	19.8	21.4	—	—	—	11.3	12.4	7.6	—	—	—
Grade 9-11	12.4	14.0	12.2	11.3	—	—	17.8	22.6	16.4	14.4	—	—
GED or equivalent	16.7	—	20.6	14.0	—	—	11.1	—	16.6	7.3	—	—
High school diploma	8.2	11.3	10.7	5.7	5.1	—	9.3	18.6	12.2	6.1	4.5	—
Some postsecondary*	7.4	12.8	10.2	7.0	4.8	—	7.8	17.6	13.5	6.5	4.3	—
Associate's degree	5.5	—	2.5	4.1	7.1	—	5.3	—	7.1	6.2	3.8	—
Bachelor's degree	4.8	—	5.7	4.8	4.8	3.2	4.8	—	5.5	5.1	4.4	3.6
Graduate degree	1.3	—	—	1.3	0.9	0.4	2.4	—	—	5.4	1.4	0.7
Document literacy												
Total	**8.3**	**13.9**	**11.2**	**6.7**	**3.9**	**2.8**	**8.5**	**17.9**	**10.4**	**6.6**	**3.4**	**3.3**
Grade 1-8	20.3	17.5	28.2	—	—	—	11.3	11.9	9.1	—	—	—
Grade 9-11	12.4	14.1	11.8	11.5	—	—	17.8	23.1	15.3	14.1	—	—
GED or equivalent	16.7	—	19.8	13.8	—	—	11.1	19.4	13.2	6.0	—	—
High school diploma	8.2	10.7	9.7	6.4	5.8	—	9.3	20.0	10.2	5.7	3.6	—
Some postsecondary*	7.4	12.4	9.8	7.7	3.6	—	7.8	17.4	9.8	7.4	3.9	—
Associate's degree	5.5	—	5.8	5.3	5.6	—	5.3	—	7.2	6.5	2.7	—
Bachelor's degree	4.8	—	5.4	4.3	5.0	3.6	4.8	—	6.2	4.7	4.0	4.5
Graduate degree	1.3	—	3.0	0.9	1.2	0.6	2.4	—	1.4	5.7	1.0	0.4
Quantitative literacy												
Total	**8.3**	**15.4**	**11.7**	**6.9**	**4.3**	**2.6**	**8.5**	**19.0**	**10.5**	**6.4**	**3.8**	**2.3**
Grade 1-8	20.3	18.6	28.0	—	—	—	11.3	12.6	—	—	—	—
Grade 9-11	12.4	14.8	12.3	10.4	—	—	17.8	24.3	14.2	12.1	—	—
GED or equivalent	16.7	—	18.6	16.4	—	—	11.1	22.2	15.5	5.3	—	—
High school diploma	8.2	12.7	10.4	5.9	6.0	—	9.3	20.3	10.5	6.0	3.3	—
Some postsecondary*	7.4	13.4	11.1	7.3	4.7	2.6	7.8	17.9	10.3	7.5	3.8	3.0
Associate's degree	5.5	—	1.8	6.5	5.8	—	5.3	—	9.4	4.1	5.5	—
Bachelor's degree	4.8	—	4.4	5.2	4.6	3.8	4.8	—	3.7	5.7	4.3	2.8
Graduate degree	1.3	—	—	1.5	1.0	0.5	2.4	—	—	3.7	1.8	0.4

— Too few cases for a reliable estimate.

* Includes those who attended vocational schools, less than 2 years of college, and more than 2 years of college without earning a degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table 31-4 Average number of weeks worked by employed 25- to 64-year-olds in the previous year, by sex, literacy domain, literacy proficiency level, and highest level of education attained: 1992

Highest education level	Male						Female					
	Literacy level						Literacy level					
	Total	1	2	3	4	5	Total	1	2	3	4	5
Prose literacy												
Total	**49.0**	**46.9**	**48.6**	**49.4**	**50.0**	**50.1**	**48.0**	**45.5**	**47.5**	**48.4**	**48.5**	**49.2**
Grade 1-8	46.3	46.0	—	—	—	—	44.7	44.6	—	—	—	—
Grade 9-11	47.6	47.0	46.9	49.8	—	—	45.8	43.5	46.5	47.6	—	—
GED or equivalent	48.1	—	48.3	48.1	—	—	47.3	—	48.0	46.9	—	—
High school diploma	49.1	46.8	48.8	49.8	50.7	—	48.1	47.5	48.1	48.4	47.9	—
Some postsecondary*	48.9	47.1	49.0	48.9	49.3	—	49.1	46.4	47.3	49.4	50.3	—
Associate's degree	51.0	—	50.6	51.0	51.1	—	49.3	—	—	50.0	49.0	—
Bachelor's degree	50.2	—	50.7	49.9	50.0	51.1	48.0	—	47.2	46.9	48.8	49.2
Graduate degree	49.2	—	—	48.3	49.9	49.0	47.1	—	—	47.7	46.3	48.5
Document literacy												
Total	**49.0**	**47.0**	**48.7**	**49.4**	**50.0**	**49.9**	**48.0**	**46.3**	**47.7**	**48.3**	**48.5**	**49.2**
Grade 1-8	46.3	46.0	—	—	—	—	44.7	44.8	—	—	—	—
Grade 9-11	47.6	47.4	46.6	49.5	—	—	45.8	44.8	46.1	47.3	—	—
GED or equivalent	48.1	—	48.3	47.8	—	—	47.3	—	47.1	46.9	—	—
High school diploma	49.1	46.7	49.1	49.7	50.5	—	48.1	48.1	48.3	48.2	47.3	—
Some postsecondary*	48.9	46.8	48.8	49.1	49.3	—	49.1	46.0	48.3	49.6	49.8	—
Associate's degree	51.0	—	50.9	51.2	50.7	—	49.3	—	—	49.5	48.6	—
Bachelor's degree	50.2	—	50.5	49.8	50.1	51.1	48.0	—	45.7	47.4	49.2	48.8
Graduate degree	49.2	—	—	48.7	50.0	49.0	47.1	—	—	46.5	46.6	48.9
Quantitative literacy												
Total	**49.0**	**46.5**	**48.6**	**49.3**	**49.8**	**50.3**	**48.0**	**45.8**	**47.9**	**48.4**	**48.4**	**48.7**
Grade 1-8	46.3	45.8	—	—	—	—	44.7	44.6	—	—	—	—
Grade 9-11	47.6	46.5	47.7	48.7	—	—	45.8	43.5	47.1	47.2	—	—
GED or equivalent	48.1	—	48.8	47.9	—	—	47.3	—	47.3	47.0	—	—
High school diploma	49.1	46.4	48.9	49.8	49.9	—	48.1	47.7	48.5	48.0	48.2	—
Some postsecondary*	48.9	47.1	48.2	49.2	49.1	49.9	49.1	46.8	47.8	49.6	49.9	—
Associate's degree	51.0	—	—	50.6	51.3	—	49.3	—	—	49.6	48.9	—
Bachelor's degree	50.2	—	49.7	49.6	50.4	50.8	48.0	—	46.5	47.6	48.8	49.1
Graduate degree	49.2	—	—	48.3	49.6	49.9	47.1	—	—	47.3	46.2	48.4

— Too few cases for a reliable estimate.

* Includes those who attended vocational schools, less than 2 years of college, and more than 2 years of college without earning a degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table 31-5 Employment rate of 25- to 64-year-olds, by sex, literacy domain, literacy proficiency level, and highest level of education attained: 1992

	Male						Female					
	Literacy level						Literacy level					
Highest education level	Total	1	2	3	4	5	Total	1	2	3	4	5
							Prose literacy					
Total	**84.0**	**69.9**	**80.1**	**87.5**	**92.7**	**95.2**	**65.9**	**42.7**	**60.4**	**70.8**	**78.0**	**84.9**
Grade 1-8	62.6	61.0	69.1	—	—	—	37.5	36.5	36.6	—	—	—
Grade 9-11	75.5	71.4	76.8	80.8	—	—	49.2	38.9	53.3	58.6	—	—
GED or equivalent	74.4	—	69.3	78.9	—	—	61.6	55.8	58.0	65.3	—	—
High school diploma	85.3	78.7	82.8	88.8	91.6	—	64.6	50.2	64.0	67.3	71.5	—
Some postsecondary*	86.0	71.3	81.8	87.1	92.0	—	70.7	47.3	63.7	73.5	75.9	86.7
Associate's degree	88.9	—	—	89.6	90.6	—	77.6	—	—	78.6	80.3	—
Bachelor's degree	90.6	—	83.4	90.1	92.1	95.6	76.6	—	72.8	73.8	78.6	82.9
Graduate degree	93.9	—	—	90.7	96.2	95.4	87.4	—	—	83.2	89.4	92.3
							Document literacy					
Total	**84.0**	**70.8**	**79.9**	**88.0**	**93.2**	**95.0**	**65.9**	**43.8**	**63.4**	**71.4**	**79.3**	**85.0**
Grade 1-8	62.6	62.4	63.6	—	—	—	37.5	35.9	39.7	—	—	—
Grade 9-11	75.5	71.5	75.2	84.3	—	—	49.2	40.2	54.7	59.0	—	—
GED or equivalent	74.4	66.2	70.6	80.5	—	—	61.6	52.4	59.0	67.8	—	—
High school diploma	85.3	79.2	83.0	89.2	91.5	—	64.6	49.9	65.2	68.6	72.1	—
Some postsecondary*	86.0	71.5	82.9	86.1	93.1	95.9	70.7	51.3	67.2	71.5	79.6	85.9
Associate's degree	88.9	—	88.1	88.5	92.4	—	77.6	—	72.4	77.1	83.9	—
Bachelor's degree	90.6	—	82.9	90.4	92.6	95.7	76.6	—	73.3	76.1	77.9	84.6
Graduate degree	93.9	—	84.9	92.9	95.8	95.7	87.4	—	90.2	82.7	90.2	92.4
							Quantitative literacy					
Total	**84.0**	**69.5**	**80.0**	**86.7**	**91.6**	**93.7**	**65.9**	**43.3**	**63.5**	**71.8**	**77.6**	**83.4**
Grade 1-8	62.6	61.9	63.2	—	—	—	37.5	35.5	41.5	—	—	—
Grade 9-11	75.5	71.5	76.1	78.9	—	—	49.2	39.1	57.2	58.4	—	—
GED or equivalent	74.4	—	68.3	78.9	—	—	61.6	54.1	54.9	68.5	—	—
High school diploma	85.3	77.4	83.4	88.4	89.6	—	64.6	51.0	64.3	68.9	70.6	—
Some postsecondary*	86.0	71.3	81.2	86.1	91.5	—	70.7	50.8	66.5	72.0	78.2	82.8
Associate's degree	88.9	—	—	87.5	91.1	—	77.6	—	71.7	82.3	75.1	—
Bachelor's degree	90.6	—	90.4	90.0	91.2	93.5	76.6	—	78.4	74.9	77.8	81.7
Graduate degree	93.9	—	—	91.0	95.3	94.7	87.4	—	85.4	86.2	88.5	92.4

— Too few cases for a reliable estimate.

* Includes those who attended vocational schools, less than 2 years of college, and more than 2 years of college without earning a degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

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Note on adult literacy proficiency levels and scale scores

For the National Adult Literacy Survey (NALS), literacy was defined based on three types of skills: prose, document, and quantitative literacy. Tasks were developed to measure these various literacy skills, and scales were created to report ability levels. Tasks that measure each type of skill were assigned a difficulty value based on a scale that ranges from 0 to 500. The prose literacy scale contained 41 tasks with difficulty values that range from 149 to 468; the document literacy scale contained 81 tasks with difficulty values that range from 69 to 396; and the quantitative literacy scale contained 39 tasks with difficulty values that range from 191 to 436.

Literacy scale scores were placed on the same 0–500 scale by determining a person's ability to correctly answer questions of various difficulty values. The scores were then converted into proficiency levels that range from 1 though 5. Five divisions along the scales were created by making cutpoints 50 points apart along the continuous scale. A person's skill level was determined by first deriving a score based on the difficulty values of the questions answered correctly compared to the difficulty values of the questions answered incorrectly, and then mapping this score onto the proficiency levels. Adults included in level 1 were those who could consistently succeed at level 1 tasks, but not at level 2 tasks, as well as those who could not consistently succeed at level 1 tasks and those who were not literate enough in English to take the test at all. Adults in levels 2 through 4 were consistently able to succeed at tasks at their proficiency level, but not at tasks for the next more difficult level. Adults in level 5 were consistently able to succeed at level 5 tasks. Below is a description of the three literacy scales and the tasks required at each proficiency level:

Prose literacy. Prose refers to any written text such as editorials, news stories, poems, and fiction, and can be broken down into two types: expository prose and narrative prose. Expository prose consists of printed information that defines, describes, or informs, such as newspaper stories or written instructions. Narrative prose tells a story. Prose varies in its length, density, and structure (e.g., use of section headings or topic sentences for paragraphs). Prose literacy tasks include locating all the information requested, integrating information from various parts of a passage of text, and writing new information related to the text.

Prose Level 1 (Difficulty values 0–225). Level 1 prose literacy tasks required a person to read a short passage of text and locate a single piece of information that is identical to or synonymous with the information given in the question. If plausible but incorrect information was present in the text, it tended not to be located near the correct information.

Prose Level 2 (Difficulty values 226–275). Prose literacy tasks at level 2 required a person to locate a single piece of information in the text, compare and contrast easily identifiable information based on criteria provided in the question, or integrate two or more pieces of information, when distractors were present or when low level inferences were required.

Prose Level 3 (Difficulty values 276–325). Prose literacy tasks at level 3 required a person to match literal or synonymous information in the text with that requested in the question, to integrate multiple pieces of information from dense or lengthy text, or to generate a response based on information that could be easily identified in the text. Distracting information was present, but was not located near the correct information.

Prose Level 4 (Difficulty values 326–375). Prose literacy tasks at level 4 required a person to search through text and match multiple features, and to integrate or synthesize multiple pieces of information from complex or lengthy passages. More complex inferences were required, and conditional information had to be taken into consideration for these tasks.

Prose Level 5 (Difficulty values 376–500). Prose literacy tasks at level 5 required a person to search through text and match multiple features contained in dense text with a number of plausible distractors, to compare and contrast complex information, or to generate new information making high-level inferences or using specialized background knowledge.

Document literacy. Documents are short forms or graphically displayed information found in everyday life, including job applications, payroll forms, transportation schedules, maps, tables, and graphs. Document literacy tasks included locating a particular intersection on a street map, using a schedule to choose the appropriate bus, or entering information on an application form.

Document Level 1 (Difficulty values 0–225). Document literacy tasks at level 1 required a person to locate information based on a literal match to the question or to enter information from personal knowledge into a document. Little, if any, distracting information was present.

Document Level 2 (Difficulty values 226–275). Document literacy tasks at level 2 required the reader to match a piece of information either when several distractors were present or when low-level inferences were required. Tasks at this level also asked the reader to cycle through information in a document or to integrate information from various parts of a document.

Document Level 3 (Difficulty values 276–325). Document literacy tasks at level 3 required a person to integrate multiple pieces of information from one or more documents. Other tasks asked readers to cycle through complex tables or graphs and locate particular features. The displays contained information that was irrelevant or inappropriate to the task.

Document Level 4 (Difficulty values 326–372). Document literacy tasks at level 4 required a person to perform multiple-feature matches, cycle through documents, and integrate information, all of which required high-level inferences. Many of these tasks required readers to provide numerous responses but did not designate how many responses were needed. Conditional information was also present in the tasks at this level and had to be taken into account by the reader.

Document Level 5 (Difficulty values 376–500). Document literacy tasks at level 5 required a person to search through complex displays that contained multiple distractors, to make high-level text-based inferences, and to use specialized knowledge. Tasks required readers to integrate information, compare and contrast data points and to summarize the results.

Quantitative literacy. Quantitative information may be displayed visually in graphs or charts or in numerical form using whole numbers, fractions, decimals, percentages, or time units (hours and minutes). These quantities appeared in both prose and document form. Quantitative literacy refers to locating quantities, integrating information from various parts of a document, determining the necessary arithmetic operation, and performing that operation. Quantitative literacy tasks included balancing a checkbook, completing an order form, and determining the amount of interest paid on a loan.

Quantitative Level 1 (Difficulty values 0–225). Quantitative literacy tasks at level 1 required a person to perform single, relatively simple arithmetic operations, such as addition, when the question included the numbers to be used and the arithmetic operation to be performed.

Quantitative Level 2 (Difficulty values 226–275). Quantitative literacy tasks at level 2 required a person to locate numbers by matching the required information with that given, infer the necessary arithmetic operation, or perform an arithmetic operation when the tasks specified the numbers and the operation to be performed. The quantities could be easily located in the text, and the operation could be determined from the format of the material.

Quantitative Level 3 (Difficulty levels 276–325). Quantitative literacy tasks at level 3 required a person to locate numbers by matching the required information with that given, infer the necessary arithmetic operation, and perform arithmetic operations on two or more numbers, or to solve a problem, when the numbers must be located in the text or document. The required operation(s) could be determined from the arithmetic-relation terms used in the question.

Quantitative Level 4 (Difficulty values 326–375). Quantitative literacy tasks at level 4 required a person to perform two or more sequential arithmetic operations or a single arithmetic operation, when the quantities could be found in different displays, or when the operations had to be inferred from semantic information given or drawn from prior knowledge.

Quantitative Level 5 (Difficulty values 376–500). Quantitative literacy tasks at level 5 required a person to perform multiple arithmetic operations sequentially, when the features of the problem had to be extracted from text or when background knowledge was required to determine the quantities or operations needed.

Table 32-1 Percentage of 25- to 34-year-olds receiving income from AFDC or public assistance, by years of schooling completed, sex, race/ethnicity, and region: 1972–92

	Years of schooling completed					
Year	All levels	Less than 9 years	9–11 years	12 years	13–15 years	16 years or more
			Sex			
Male						
1972	1.9	5.9	3.6	1.6	1.0	0.6
1973	1.5	6.0	3.2	1.2	1.1	0.3
1974	1.8	6.1	4.5	1.4	1.0	0.8
1975	1.2	4.7	3.4	0.9	1.1	—
1976	1.4	4.4	4.1	1.2	1.3	0.2
1977	1.3	4.7	3.7	1.4	0.4	0.3
1978	1.3	5.2	4.2	1.2	0.9	0.2
1979	1.3	5.1	4.6	1.1	0.6	0.3
1980	1.4	4.2	2.8	1.6	1.3	0.3
1981	1.5	4.3	5.0	1.6	1.0	0.2
1982	1.4	3.9	4.7	1.7	0.6	0.2
1983	1.5	3.9	5.4	1.5	1.1	0.2
1984	1.6	4.6	5.3	1.7	0.9	0.3
1985	1.4	4.8	4.9	1.3	1.0	0.2
1986	1.2	2.2	4.3	1.1	0.6	0.3
1987	1.3	4.5	2.9	1.3	1.1	0.1
1988	1.0	4.9	3.0	1.0	0.6	—
1989	1.2	2.3	4.3	1.2	0.6	0.2
1990	1.0	2.1	3.8	0.9	0.4	0.3
1991	1.1	2.3	2.7	1.0	0.8	0.4
1992	1.4	2.6	4.6	1.4	0.9	0.2
Female						
1972	6.1	17.9	14.7	4.6	2.2	—
1973	6.3	18.2	15.7	4.9	2.3	0.9
1974	6.8	24.0	17.1	4.8	3.1	0.8
1975	6.0	17.7	16.9	5.2	1.9	0.6
1976	6.2	17.0	18.5	5.2	2.9	0.7
1977	6.6	18.3	18.4	5.9	4.0	0.4
1978	6.4	16.7	19.0	5.6	4.3	0.5
1979	6.5	19.8	19.8	5.9	3.7	0.9
1980	7.0	19.9	21.1	6.8	3.8	0.6
1981	7.1	18.6	20.9	7.1	4.5	0.8
1982	6.5	15.7	22.4	6.6	3.6	0.3
1983	6.8	20.1	23.2	6.8	3.9	0.4
1984	6.9	22.9	24.2	6.4	3.8	1.2
1985	7.0	20.1	23.1	7.4	4.2	0.5
1986	7.2	22.5	24.2	7.6	4.1	0.3
1987	7.0	22.5	23.8	7.4	3.7	0.4
1988	6.9	18.8	26.0	7.2	3.6	0.4
1989	6.7	16.7	23.8	6.9	4.1	0.7
1990	7.8	16.7	26.3	8.7	4.4	0.6
1991	8.8	22.3	29.5	10.1	5.2	0.6
1992	8.8	19.6	30.1	9.9	6.1	0.8

Table 32-1 Percentage of 25- to 34-year-olds receiving income from AFDC or public assistance, by years of schooling completed, sex, race/ethnicity, and region: 1972–92—Continued

Year	Years of schooling completed: All levels	Less than 9 years	9–11 years	12 years	13–15 years	16 years or more
			Race/ethnicity			
White						
1972	2.4	7.3	6.0	2.2	0.9	0.4
1973	2.3	9.3	5.6	2.1	1.4	0.5
1974	2.9	12.2	8.0	2.4	1.5	0.7
1975	2.3	7.7	7.0	2.4	1.1	0.3
1976	2.3	6.9	7.5	2.3	1.5	0.4
1977	2.4	8.5	8.0	2.6	1.2	0.3
1978	2.2	8.5	7.7	2.3	1.6	0.2
1979	2.3	9.1	7.9	2.5	1.2	0.5
1980	2.7	9.1	8.5	3.2	1.6	0.3
1981	2.6	7.7	9.5	2.9	2.0	0.3
1982	2.4	7.3	10.3	2.6	1.1	0.2
1983	2.5	9.8	10.7	2.6	1.6	0.1
1984	2.6	10.2	10.6	2.7	1.4	0.5
1985	2.6	10.8	9.5	3.1	1.3	0.3
1986	2.8	10.6	11.2	2.9	2.0	0.2
1987	2.4	9.3	7.8	2.9	1.7	0.2
1988	2.4	11.0	9.2	2.8	1.2	0.1
1989	2.4	9.1	8.5	2.9	1.4	0.3
1990	2.7	9.6	10.6	3.2	1.7	0.3
1991	3.4	12.5	11.9	4.0	2.4	0.4
1992	3.4	11.3	11.3	4.0	2.9	0.4
Black						
1972	15.0	24.1	23.2	12.2	7.7	0.0
1973	14.5	23.1	25.9	12.1	4.3	—
1974	13.9	27.5	25.0	10.7	7.2	2.7
1975	13.0	24.3	27.8	10.0	5.2	0.0
1976	13.8	22.8	27.0	11.4	7.3	1.8
1977	13.8	24.0	26.4	12.4	8.4	—
1978	14.6	23.2	28.1	12.4	10.6	2.0
1979	13.5	26.3	26.8	12.0	8.1	1.9
1980	13.4	24.7	25.3	12.9	7.9	1.7
1981	14.6	27.2	29.1	14.9	8.0	2.5
1982	12.8	14.6	25.8	13.6	8.2	1.3
1983	13.4	19.2	26.8	13.4	8.2	2.5
1984	14.0	27.3	30.3	12.6	8.8	3.9
1985	12.6	15.0	30.7	11.7	9.7	1.0
1986	11.4	21.5	25.7	11.8	5.0	1.6
1987	13.0	30.1	28.5	12.4	7.3	—
1988	12.3	32.2	28.9	11.6	7.1	1.1
1989	11.8	16.9	30.3	10.9	7.3	1.9
1990	13.1	15.8	30.9	13.0	6.9	2.7
1991	12.4	18.9	28.6	13.1	6.2	—
1992	13.7	18.3	35.6	13.2	8.3	1.5

Table 32-1 Percentage of 25- to 34-year-olds receiving income from AFDC or public assistance, by years of schooling completed, sex, race/ethnicity, and region: 1972–92—Continued

Year	Years of schooling completed					
	All levels	Less than 9 years	9-11 years	12 years	13-15 years	16 years or more
Hispanic						
1972	8.2	14.4	9.6	3.4	3.8	—
1973	8.2	11.1	16.2	5.5	2.1	0.0
1974	9.3	16.2	14.2	3.8	2.3	—
1975	6.9	12.9	10.6	3.4	1.9	0.0
1976	8.5	13.7	15.0	4.7	2.2	—
1977	8.6	12.5	13.1	6.6	4.0	—
1978	7.8	9.8	13.7	6.9	3.5	—
1979	7.8	11.5	15.1	5.4	2.5	0.0
1980	7.1	9.9	14.2	4.5	3.8	—
1981	6.8	9.1	13.3	5.0	2.8	2.5
1982	7.2	9.9	14.2	5.4	3.7	—
1983	7.4	9.2	15.5	5.2	4.1	1.5
1984	7.2	11.6	10.6	5.7	3.3	2.0
1985	7.6	12.2	13.2	5.2	3.5	0.8
1986	7.0	10.5	10.6	6.8	2.9	—
1987	6.6	11.2	10.7	5.9	2.4	0.9
1988	6.1	7.5	14.0	4.8	2.3	1.0
1989	5.6	5.7	12.0	4.4	4.0	1.0
1990	6.5	7.6	13.2	5.3	2.9	0.8
1991	7.6	9.6	15.1	6.0	4.0	—
1992	7.3	7.6	15.0	7.2	3.6	0.6
			Region			
Northeast						
1972	5.7	18.1	15.2	4.5	1.1	0.4
1973	5.1	17.5	15.4	3.7	0.7	0.8
1974	5.4	18.8	15.8	3.7	2.6	1.3
1975	4.7	16.4	15.5	3.9	2.3	—
1976	4.9	14.6	19.7	3.4	2.7	0.6
1977	5.1	19.3	17.5	4.1	2.9	0.7
1978	4.8	18.4	19.6	3.9	2.7	0.3
1979	5.5	21.8	20.7	5.0	2.5	0.5
1980	5.5	19.1	14.8	6.3	3.3	0.5
1981	5.6	18.2	20.8	5.4	4.0	0.8
1982	5.1	17.6	24.0	4.5	2.2	0.3
1983	5.3	20.8	20.0	5.9	2.4	0.3
1984	6.1	28.0	25.8	5.9	2.8	0.7
1985	5.5	31.2	23.4	5.2	3.1	0.4
1986	4.8	19.6	19.1	5.3	2.6	0.2
1987	4.5	23.2	16.3	4.9	2.4	0.4
1988	4.4	19.3	19.5	4.4	2.7	0.3
1989	4.3	13.1	18.4	5.0	1.9	0.6
1990	5.3	14.5	24.3	5.5	3.5	0.4
1991	5.8	16.3	22.8	6.6	3.4	0.6
1992	6.1	19.1	22.6	7.0	4.5	0.6

Table 32-1 **Percentage of 25- to 34-year-olds receiving income from AFDC or public assistance, by years of schooling completed, sex, race/ethnicity, and region: 1972–92—Continued**

Year	Years of schooling completed					
	All levels	Less than 9 years	9–11 years	12 years	13–15 years	16 years or more
Midwest						
1972	3.7	9.1	10.0	3.1	1.6	—
1973	3.7	13.8	10.3	3.0	1.8	0.4
1974	4.1	21.3	10.5	3.2	1.6	0.7
1975	4.0	13.6	12.5	3.9	1.7	0.3
1976	4.0	15.5	11.7	4.2	1.9	0.3
1977	4.0	10.9	12.6	4.6	1.8	0.2
1978	4.0	13.6	13.4	3.5	2.9	0.4
1979	4.2	18.2	15.0	3.8	2.1	0.5
1980	5.1	15.4	17.2	5.0	3.2	0.8
1981	5.0	12.5	16.9	5.4	3.6	0.3
1982	5.4	13.3	20.2	5.8	3.5	—
1983	5.9	18.2	22.5	5.7	4.0	0.7
1984	6.0	20.7	21.8	5.9	3.4	1.1
1985	5.7	14.3	17.4	6.5	3.4	0.3
1986	5.7	25.9	19.3	5.5	3.7	0.5
1987	5.4	21.6	17.6	5.7	3.2	—
1988	5.0	18.2	16.4	5.5	2.6	0.2
1989	4.8	12.4	17.7	4.8	3.3	0.4
1990	5.5	16.3	19.0	5.9	3.1	0.5
1991	5.7	15.0	19.6	6.2	4.2	0.3
1992	5.9	11.1	22.0	6.5	4.2	0.5
South						
1972	2.8	9.1	5.7	1.9	0.6	0.0
1973	2.9	8.8	6.5	2.3	0.7	—
1974	3.6	12.3	8.6	2.3	1.0	0.3
1975	2.7	9.3	8.0	1.6	0.7	0.0
1976	2.9	6.9	9.2	2.1	0.9	0.2
1977	3.0	8.9	9.1	2.4	1.0	—
1978	3.2	9.2	9.2	2.7	1.5	—
1979	2.7	7.8	7.6	2.3	1.7	0.2
1980	2.8	8.4	8.3	2.6	1.1	0.2
1981	2.8	8.5	8.8	2.5	1.2	0.2
1982	2.4	5.7	6.5	2.6	1.0	—
1983	2.6	7.7	8.1	2.3	1.4	—
1984	2.6	7.9	6.5	2.3	1.9	0.5
1985	2.6	6.0	8.9	2.3	1.8	0.1
1986	2.9	8.5	9.3	2.6	1.1	0.3
1987	3.2	9.6	8.8	3.6	1.2	—
1988	3.2	9.1	9.3	3.1	1.7	0.3
1989	2.8	7.0	9.1	2.5	1.9	0.1
1990	3.4	5.7	10.2	3.8	1.6	0.2
1991	3.9	9.1	11.5	4.6	1.7	0.1
1992	4.2	7.8	13.6	4.5	2.3	0.5

Table 32-1 Percentage of 25- to 34-year-olds receiving income from AFDC or public assistance, by years of schooling completed, sex, race/ethnicity, and region: 1972–92—Continued

Year	Years of schooling completed					
	All levels	Less than 9 years	9-11 years	12 years	13-15 years	16 years or more
West						
1972	4.5	11.8	10.9	4.2	2.8	1.3
1973	4.6	7.9	12.9	4.7	3.4	1.1
1974	4.6	9.4	15.3	4.7	2.9	1.1
1975	3.5	7.1	10.2	4.9	1.5	0.7
1976	4.1	12.1	10.5	4.8	3.0	0.7
1977	4.0	9.9	11.4	5.3	2.9	0.4
1978	3.9	5.1	11.7	5.1	3.1	0.6
1979	4.0	9.0	12.3	5.1	2.4	1.1
1980	4.1	9.6	15.1	4.6	3.0	0.3
1981	4.6	11.7	13.5	5.9	2.7	0.8
1982	3.8	8.6	14.2	4.9	1.9	0.5
1983	3.6	7.8	14.8	3.9	2.4	0.2
1984	3.3	9.4	14.8	3.3	1.7	0.7
1985	3.9	8.2	12.4	4.5	2.7	0.7
1986	4.1	6.9	13.1	5.4	2.7	0.1
1987	3.8	10.1	10.8	3.7	3.3	0.4
1988	3.9	8.7	15.8	4.1	1.8	—
1989	4.5	7.8	14.1	4.9	2.7	0.7
1990	4.0	7.0	13.9	4.0	2.4	0.8
1991	5.1	10.4	15.0	5.3	3.9	1.0
1992	4.8	8.3	14.4	4.9	4.3	0.3

— Too few cases for a reliable estimate.

NOTE: Beginning in 1992, the Current Population Survey changed the questions used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 22* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 33-1 Percentage of adult population 25 years and older who reported volunteering for various organizations in the past 12 months, by level of education: 1992

Organizations volunteers worked for in last 12 months	Total	No postsecondary education	Some postsecondary education
Organizations			
Religious	28.0	20.4	36.8
Informal[1]	24.3	17.6	32.0
Education	16.4	7.9	26.1
Youth	14.3	7.9	21.6
Health	12.7	6.6	19.7
Human services	12.2	7.9	17.4
Environment	8.5	4.8	12.7
Work-related	7.3	3.7	11.5
Public/society benefit[2]	6.5	2.5	11.1
Recreation (adults)	6.4	3.8	9.3
Arts/culture/humanities	6.2	2.6	10.4
Political	5.1	2.7	7.8
Private/community foundations	2.3	1.6	3.1
International/foreign	2.2	0.8	3.8

[1] Volunteering informally is defined as helping a neighbor, friend, or organization on an ad hoc basis, spending time caring for an elderly person, or baby-sitting children of a friend, but not as part of an organized group or for pay.

[2] Volunteering for a public or society benefit organization includes civil rights work, community and social action, advocacy (e.g., minority and women's equity issues); community improvement, community capacity planning; science; technology; technical assistance; volunteerism; philanthropy; charity between groups, e.g., Rotary, Kiwanis, etc.; consumer organizations, advocacy organizations, such as nuclear freeze, antipoverty boards, etc.

SOURCE: Biennial Gallup Survey on Giving and Volunteering (1992), sponsored by the Independent Sector.

Description of source and definitions for community service, volunteering, and giving

Source Information

Data are from a national survey of 2,671 adult Americans commissioned by the Independent Sector and conducted by the Gallup Organization.[1] This is the third in a series of similar surveys conducted biennially beginning in 1988 to determine giving and volunteer behavior for all Americans. The sampling procedure is designed to produce an approximation of the adult civilian population, 18 years and older, living in the United States. The sample included oversamples of blacks, Hispanics, and affluent Americans (household incomes greater than $60,000) in order to have enough respondents to carry out statistically reliable analyses of these groups.

The sample design is a replicated, multi-stage area probability sample down to the block level in urban areas, and to segments of townships in rural areas. Within each stratum (regions within size-of-community strata), the population is arrayed in geographic order and zoned into equal-sized groups of sampling units. Pairs of localities are selected in each zone, with probability of selection proportional to population size in the 1980 census, producing two replicated samples of localities. Within each subdivision, a sample of blocks or block clusters are drawn. In each cluster of blocks, a randomly selected starting point is designated on the interviewer's map of the area. From this point, interviewers follow a given direction in the selection of households until their assignment is complete.

The data are weighted in four stages: correcting for underrepresentation of persons difficult to find at home; corrections for oversamples; demographic and post-stratification adjustments based on the Current Population Survey (CPS); and a final adjustment also based on CPS estimates to ensure that the various demographic categories oversampled for this survey were represented in their appropriate proportions.

Definitions

Volunteering: The measures of volunteering were based on the responses of individuals who were given a list of organizations and types of volunteer work and were asked about their own activities that "in some way helped others for no monetary pay" in the past 12 months. They were also asked about the total number of hours they volunteered in the last month and total hours volunteered in the past week. The average hours per week per volunteer were calculated on an annual basis by multiplying the average hours volunteered monthly by the percentage of persons volunteering monthly to those volunteering annually divided by 4.33 weeks per month.

Giving: The amount of contributions to charitable organizations were based on responses about household contributions (as opposed to individual contributions) where respondents were asked a number of questions about the amount of household income they contributed to various religious and other organizations "not with the intention of making a profit, or obtaining goods or services for yourself."

Postsecondary education: This refers to any education beyond high school and includes 7 percent of the population who reported attending technical, trade, or business school. About 20 percent of the population were college graduates.

NOTES:

[1] Some of the data presented for this indicator are from a published report by the Independent Sector, *Giving and Volunteering 1992: Findings from a National Survey*, Washington, D.C., 1992.

Table 34-1 Percentage of new doctoraal recipients with definite employment plans in the United States who had job commitments in higher education, by field of study: Years of doctorate 1970–93

Field of study	1970	1971	1972	1973	1974	1975	1976	1977
All fields[1]	**68.1**	**69.3**	**67.7**	**65.0**	**62.6**	**60.4**	**60.5**	**58.8**
Humanities and social/behavioral sciences	86.4	85.3	83.3	80.7	78.3	75.5	73.8	71.6
Humanities	96.1	94.4	94.0	93.3	91.0	89.3	90.0	87.4
Social and behavioral sciences	80.3	79.7	76.6	73.2	71.2	68.7	66.0	63.9
Natural and computer sciences and engineering	46.6	50.5	48.4	45.5	41.4	39.2	42.8	40.5
Natural sciences	56.4	61.1	60.9	57.2	53.2	47.7	51.9	48.7
Life sciences	70.9	73.2	68.8	68.4	66.0	61.7	61.7	63.3
Physical sciences	38.2	41.9	45.5	38.0	32.3	25.8	31.6	29.8
Mathematics	80.3	85.7	78.7	77.6	77.1	74.3	77.8	72.6
Computer sciences and engineering	28.6	31.3	27.0	25.3	21.1	24.9	27.0	27.0
Computer sciences	—	—	—	—	—	—	—	50.0
Engineering	28.6	31.3	27.0	25.3	21.1	24.9	27.0	26.7
Technical/professional	71.6	69.0	66.4	63.3	62.2	60.3	59.0	58.7
Education	70.9	67.6	63.5	60.2	58.5	56.4	54.7	54.5
Other technical/professional[2]	73.9	73.3	75.8	71.8	72.0	70.3	70.8	69.7

Field of study	1978	1979	1980	1981	1982	1983	1984	1985
All fields[1]	**56.9**	**55.1**	**52.6**	**51.4**	**50.3**	**51.7**	**50.7**	**50.6**
Humanities and social/behavioral sciences	69.1	65.7	62.7	61.8	61.8	62.5	60.2	61.0
Humanities	85.3	82.3	80.7	82.3	82.7	84.4	81.9	81.9
Social and behavioral sciences	61.3	58.2	54.6	52.8	52.5	52.5	50.2	51.1
Natural and computer sciences and engineering	38.6	36.8	35.2	34.2	33.3	38.0	36.9	36.9
Natural sciences	45.1	41.7	39.4	36.4	36.1	38.9	38.8	39.6
Life sciences	61.4	59.3	53.8	55.0	50.3	49.9	45.1	50.3
Physical sciences	24.9	22.2	20.1	16.8	19.2	23.1	22.5	23.4
Mathematics	71.4	70.8	72.1	70.3	74.6	77.2	79.4	76.4
Computer sciences and engineering	27.5	29.1	28.4	30.6	28.6	36.7	34.1	33.2
Computer sciences	60.6	53.2	47.4	52.7	50.4	53.6	50.3	54.2
Engineering	25.6	26.6	26.5	28.0	26.2	34.4	31.7	30.6
Technical/professional	57.4	57.8	55.2	53.4	52.1	51.7	51.9	51.4
Education	52.5	52.6	50.0	48.2	45.9	45.0	43.9	42.8
Other technical/professional[2]	68.6	69.8	68.2	65.8	65.6	66.3	68.6	68.3

Field of study	1986	1987	1988	1989	1990	1991	1992	1993
All fields[1]	**50.3**	**51.9**	**51.9**	**52.7**	**51.9**	**52.2**	**51.8**	**51.9**
Humanities and social/behavioral sciences	58.4	61.1	61.2	63.2	63.9	64.6	64.6	65.3
Humanities	80.4	84.8	82.7	83.1	84.9	84.9	85.3	86.0
Social and behavioral sciences	48.9	49.2	50.9	53.2	52.8	53.8	52.6	53.4
Natural and computer sciences and engineering	35.9	37.6	38.4	37.9	34.1	34.4	32.8	33.5
Natural sciences	36.6	37.7	40.0	39.6	37.5	39.3	39.5	39.6
Life sciences	45.8	44.7	49.8	49.2	47.1	48.2	45.2	45.4
Physical sciences	20.6	24.4	23.3	21.6	20.8	20.8	22.0	22.3
Mathematics	76.5	75.4	81.5	82.5	81.1	79.1	77.4	73.6
Computer sciences and engineering	35.0	37.5	36.9	36.3	31.0	29.8	26.7	27.8
Computer sciences	51.3	68.5	58.9	64.9	57.1	49.6	42.1	47.2
Engineering	32.6	32.1	32.8	30.6	26.0	25.8	23.5	23.5
Technical/professional	52.8	53.6	53.4	55.0	54.5	54.7	54.1	53.1
Education	45.0	45.0	44.4	46.0	46.8	46.7	46.9	44.8
Other technical/professional[2]	68.5	69.6	69.4	70.2	68.9	68.5	67.0	68.1

— Data not collected as a separate field of study.

[1] Includes those for whom field of study was unknown.

[2] Primarily composed of agricultural sciences, business and management, communications, health sciences, and other occupationally oriented fields.

NOTE: Only new doctoral recipients with definite employment commitments in the United States are reported here. A "definite commitment" is defined as a signed contract, acceptance of a formal offer, etc. Employment in higher education includes positions in 4-year colleges or universities, medical schools, and junior or community colleges with the exception of postdoctoral fellowships.

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Table 34-2 Number of new doctoral recipients with definite employment plans in the United States who had job commitments in higher education, by field of study: Years of doctorate 1970–93

Field of study	1970	1971	1972	1973	1974	1975	1976	1977
All fields[1]	**11,537**	**12,306**	**11,917**	**11,626**	**10,414**	**10,135**	**9,761**	**8,896**
Humanities and social/behavioral sciences	5,071	5,468	5,441	5,349	4,721	4,524	4,193	3,756
Humanities	2,169	2,299	2,350	2,315	1,962	1,764	1,655	1,498
Social and behavioral sciences	2,902	3,169	3,091	3,034	2,759	2,760	2,538	2,258
Natural and computer sciences and engineering	2,711	2,721	2,346	2,162	1,792	1,638	1,611	1,471
Natural sciences	2,126	2,125	1,861	1,721	1,458	1,249	1,240	1,105
Life sciences	786	800	691	733	616	496	497	431
Physical sciences	723	686	607	495	398	317	336	334
Mathematics	617	639	563	493	444	436	407	340
Computer sciences and engineering	585	596	485	441	334	389	371	366
Computer sciences	—	—	—	—	—	—	—	—
Engineering	585	596	485	441	334	389	371	358
Technical/professional	3,731	4,099	4,125	4,105	3,888	3,967	3,936	3,663
Education	2,786	2,998	3,000	2,860	2,644	2,686	2,681	2,462
Other technical/professional[2]	945	1,101	1,125	1,245	1,244	1,281	1,255	1,201

Field of study	1978	1979	1980	1981	1982	1983	1984	1985
All fields[1]	**8,260**	**8,133**	**7,911**	**7,725**	**7,278**	**7,189**	**6,770**	**6,792**
Humanities and social/behavioral sciences	3,427	3,237	3,056	3,084	2,836	2,808	2,548	2,567
Humanities	1,380	1,262	1,225	1,262	1,178	1,186	1,091	1,114
Social and behavioral sciences	2,047	1,975	1,831	1,822	1,658	1,622	1,457	1,453
Natural and computer sciences and engineering	1,350	1,394	1,326	1,297	1,249	1,328	1,263	1,307
Natural sciences	998	968	911	857	847	815	785	815
Life sciences	402	407	363	364	324	290	255	299
Physical sciences	277	273	245	218	259	274	248	267
Mathematics	319	288	303	275	264	251	282	249
Computer sciences and engineering	352	426	415	440	402	513	478	492
Computer sciences	43	74	63	79	68	90	91	90
Engineering	309	352	352	361	334	423	387	402
Technical/professional	3,474	3,493	3,525	3,330	3,183	3,048	2,954	2,909
Education	2,211	2,237	2,264	2,115	1,928	1,813	1,693	1,608
Other technical/professional[2]	1,263	1,256	1,261	1,215	1,255	1,235	1,261	1,301

Field of study	1986	1987	1988	1989	1990	1991	1992	1993
All fields[1]	**6,746**	**6,731**	**6,986**	**7,328**	**7,547**	**7,967**	**8,059**	**7,740**
Humanities and social/behavioral sciences	2,479	2,529	2,629	2,718	2,969	3,127	3,189	3,118
Humanities	1,030	1,176	1,153	1,194	1,363	1,423	1,551	1,499
Social and behavioral sciences	1,449	1,353	1,476	1,524	1,606	1,704	1,638	1,619
Natural and computer sciences and engineering	1,234	1,251	1,399	1,476	1,366	1,440	1,357	1,311
Natural sciences	700	658	718	766	716	795	782	751
Life sciences	244	219	255	280	246	275	275	273
Physical sciences	221	243	234	227	226	225	219	207
Mathematics	235	196	229	259	244	295	288	271
Computer sciences and engineering	534	593	681	710	650	645	575	560
Computer sciences	101	161	168	211	192	180	155	174
Engineering	433	432	513	499	458	465	420	386
Technical/professional	3,022	2,932	2,944	3,117	3,194	3,387	3,501	3,306
Education	1,717	1,598	1,568	1,643	1,787	1,841	1,952	1,796
Other technical/professional[2]	1,305	1,334	1,376	1,474	1,407	1,546	1,549	1,510

— Data not collected as a separate field of study.

[1] Includes those for whom field of study was unknown.

[2] Principally composed of agricultural sciences, business and management, communications, health sciences, and other occupationally oriented fields.

NOTE: Only new doctoral recipients with definite employment commitments in the United States are reported here. A "definite commitment" is defined as a signed contract acceptance of a formal offer, etc. Employment in higher education includes positions in 4-year colleges or universities, medical schools, and junior or community colleges with the exception of postdoctoral fellowships.

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Table 34-3 Number of new doctoral recipients, by postgraduate plans: Year of doctorate 1970–93

		Doctorates with definite postgraduation commitments				
			With plans in the United States[1]			
Year of doctorate	Total number of doctorates[2]	Total with plans[3]	Postdoctoral study	Employment	Outside United States	Location unknown
1970	29,498	22,596	2,934	16,931	1,864	810
1971	31,867	23,867	3,119	17,759	2,176	687
1972	33,041	23,902	3,272	17,605	2,317	521
1973	33,755	24,091	3,335	17,881	2,182	573
1974	33,047	22,283	2,920	16,624	2,103	529
1975	32,951	22,924	3,344	16,767	2,077	558
1976	32,946	22,503	3,497	16,147	2,059	618
1977	31,716	21,345	3,438	15,128	1,913	716
1978	30,875	20,849	3,623	14,510	1,808	805
1979	31,237	21,411	3,711	14,770	1,927	865
1980	31,020	21,919	3,824	15,035	1,867	1,132
1981	31,353	21,888	3,700	15,036	1,981	1,122
1982	31,096	21,422	3,688	14,457	2,041	1,206
1983	31,216	21,163	3,797	13,873	2,086	1,380
1984	31,277	20,757	3,958	13,346	1,966	1,451
1985	31,297	20,953	4,005	13,420	2,089	1,389
1986	31,895	21,297	4,304	13,416	2,113	1,400
1987	32,364	21,360	4,629	12,960	2,087	1,608
1988	33,490	22,202	4,979	13,472	2,107	1,547
1989	34,319	22,811	4,984	13,893	2,188	1,687
1990	36,027	23,299	5,040	14,539	2,645	1,007
1991	37,517	24,210	5,620	15,255	2,870	365
1992	38,853	24,781	5,920	15,554	3,014	139
1993	39,754	24,404	6,096	14,922	3,140	114

[1] Those with unknown type of plans are not shown.

[2] Due to differences in survey design, the total number of doctorates reported by the Survey of Earned Doctorates differs from that obtained from the U.S. Department of Education's IPEDS/HEGIS surveys of degrees conferred.

[3] Includes those with unknown type of plans in the United States.

NOTE: A "definite commitment" is defined as a signed contract, acceptance of a formal offer, etc. Data for 1985–88 from previously published figures.

SOURCE: National Science Foundation, *Science and Engineering Doctorates: 1960–90*, table 15, and earlier editions (based on the Survey of Earned Doctorates, Doctorate Records File).

Table 34-4 Percentage of new doctoral recipients with definite employment plans in the United States, by postdoctoral employer: Year of doctorate: 1970–93

Year of doctorate	Total with definite employment plans in U.S.	Colleges/ universities	Elementary/ secondary schools	Federal govern-ment	State/local govern-ment	Nonprofit agencies	Industry/ business	Self-employed	Other/ unknown
1970	100.0	68.1	4.4	5.2	2.9	3.5	14.8	0.5	0.6
1971	100.0	69.3	5.5	6.2	3.5	3.3	11.4	0.4	0.4
1972	100.0	67.7	7.1	7.4	3.7	3.7	9.4	0.5	0.4
1973	100.0	65.0	7.6	6.7	4.3	4.5	10.8	0.5	0.5
1974	100.0	62.6	7.6	6.5	5.0	4.9	12.2	0.7	0.4
1975	100.0	60.4	8.3	7.2	5.2	5.3	12.4	0.8	0.4
1976	100.0	60.5	9.4	6.7	5.6	5.6	10.9	0.9	0.4
1977	100.0	58.8	8.9	6.9	6.0	6.0	12.0	1.1	0.3
1978	100.0	56.9	8.7	6.3	5.8	6.7	14.0	1.2	0.3
1979	100.0	55.1	8.4	6.5	6.2	6.6	15.5	1.3	0.4
1980	100.0	52.6	9.8	6.4	6.0	7.1	16.3	1.5	0.3
1981	100.0	51.4	9.8	6.1	6.4	6.7	17.4	1.9	0.4
1982	100.0	50.3	9.8	5.1	5.8	7.3	19.0	2.3	0.4
1983	100.0	51.7	10.3	5.5	5.3	7.2	17.3	2.4	0.3
1984	100.0	50.7	10.6	6.2	5.4	7.6	16.8	2.3	0.3
1985	100.0	50.6	10.0	5.5	5.8	7.6	18.0	2.1	0.4
1986	100.0	50.3	10.1	5.4	5.6	7.6	18.2	2.5	0.4
1987	100.0	51.9	10.2	5.5	4.8	7.6	17.1	2.2	0.6
1988	100.0	51.9	10.2	5.6	4.4	7.5	17.8	2.2	0.5
1989	100.0	52.7	9.2	5.4	4.8	7.0	18.5	2.1	0.3
1990	100.0	51.9	9.8	5.4	3.5	6.7	18.8	2.9	1.0
1991	100.0	52.2	10.1	5.1	3.5	6.8	18.3	2.8	1.2
1992	100.0	51.8	10.2	5.3	3.5	6.8	17.8	3.0	1.5
1993	100.0	51.9	10.8	5.4	3.7	6.0	17.3	3.0	1.9

SOURCE: National Research Council, Survey of Earned Doctorates, Doctorate Records File, various years.

Table 35-1 Elementary and secondary school enrollment, by control and level of school, with projections: Fall 1970 to fall 2005 (in thousands)

		Public schools			Private schools[1]		
Year	Total	Grades K-12[2]	Grades K-8[2]	Grades 9-12	Grades K-12[2]	Grades K-8[2]	Grades 9-12
1970	51,257	45,894	32,558	13,336	5,363	4,052	1,311
1971	51,271	46,071	32,318	13,753	5,200	3,900	1,300
1972	50,726	45,726	31,879	13,848	5,000	3,700	1,300
1973	50,444	45,444	31,401	14,044	5,000	3,700	1,300
1974	50,073	45,073	30,971	14,103	5,000	3,700	1,300
1975	49,819	44,819	30,515	14,304	5,000	3,700	1,300
1976	49,477	44,310	29,997	14,314	5,167	3,825	1,342
1977	48,717	43,577	29,375	14,203	5,140	3,797	1,343
1978	47,636	42,550	28,463	14,088	5,086	3,732	1,353
1979	46,650	41,650	28,034	13,616	5,000	3,700	1,300
1980	46,208	40,877	27,647	13,231	5,331	3,992	1,339
1981	45,544	40,044	27,280	12,764	5,500	4,100	1,400
1982	45,165	39,565	27,161	12,405	5,600	4,200	1,400
1983	44,967	39,252	26,981	12,271	5,715	4,315	1,400
1984	44,908	39,208	26,905	12,304	5,700	4,300	1,400
1985	44,978	39,421	27,034	12,388	5,557	4,195	1,362
1986	45,205	39,753	27,420	12,333	5,452	4,116	1,336
1987	45,487	40,008	27,933	12,076	5,479	4,232	1,247
1988	45,429	40,188	28,501	11,687	5,241	4,036	1,206
1989	45,897	40,542	29,152	11,390	5,355	4,162	1,193
1990	46,449	41,217	29,878	11,338	5,232	4,095	1,137
1991	47,246	42,047	30,506	11,541	5,199	4,074	1,125
1992	48,109	42,735	30,997	11,738	5,375	4,212	1,163
1993	48,824	43,353	31,374	11,979	5,471	4,280	1,191
1994[3]	49,813	44,237	31,849	12,388	5,576	4,345	1,232
				Projected			
1995	50,709	45,037	32,293	12,774	5,672	4,405	1,267
1996	51,745	45,960	32,863	13,097	5,785	4,483	1,302
1997	52,686	46,797	33,420	13,377	5,889	4,559	1,330
1998	53,367	47,403	33,825	13,578	5,964	4,614	1,350
1999	53,937	47,911	34,133	13,778	6,026	4,656	1,370
2000	54,402	48,323	34,452	13,871	6,079	4,700	1,379
2001	54,807	48,684	34,681	14,003	6,123	4,731	1,392
2002	55,155	48,994	34,856	14,138	6,161	4,755	1,406
2003	55,413	49,225	34,963	14,262	6,188	4,770	1,418
2004	55,681	49,470	34,931	14,539	6,211	4,765	1,446
2005	55,871	49,651	34,703	14,948	6,220	4,734	1,486

[1] Beginning in fall 1980, data include estimates for the expanded universe of private schools.

[2] Includes most kindergarten and some nursery school students.

[3] Estimates based on preliminary data.

NOTE: The private school enrollment figures from years 1971-75, 1979, 1981-82, 1984, and 1986-92 are estimated. Projections are based on data through 1991. Because of rounding, details may not add up to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 3; *Projections of Education Statistics to 2005*, 1995, table 1.

Table 35-2 Percentage of total elementary and secondary school enrollment, by control and level of school, with projections: Fall 1970 to fall 2005

		Public schools			Private schools[1]		
Year	Total	Grades K-12[2]	Grades K-8[2]	Grades 9-12	Grades K-12[2]	Grades K-8[2]	Grades 9-12
1970	100.0	89.5	63.5	26.0	10.5	7.9	2.6
1971	100.0	89.9	63.0	26.8	10.1	7.6	2.5
1972	100.0	90.1	62.8	27.3	9.9	7.3	2.6
1973	100.0	90.1	62.2	27.8	9.9	7.3	2.6
1974	100.0	90.0	61.9	28.2	10.0	7.4	2.6
1975	100.0	90.0	61.3	28.7	10.0	7.4	2.6
1976	100.0	89.6	60.6	28.9	10.4	7.7	2.7
1977	100.0	89.4	60.3	29.2	10.6	7.8	2.8
1978	100.0	89.3	59.8	29.6	10.7	7.8	2.8
1979	100.0	89.3	60.1	29.2	10.7	7.9	2.8
1980	100.0	88.5	59.8	28.6	11.5	8.6	2.9
1981	100.0	87.9	59.9	28.0	12.1	9.0	3.1
1982	100.0	87.6	60.1	27.5	12.4	9.3	3.1
1983	100.0	87.3	60.0	27.3	12.7	9.6	3.1
1984	100.0	87.3	59.9	27.4	12.7	9.6	3.1
1985	100.0	87.6	60.1	27.5	12.4	9.3	3.0
1986	100.0	87.9	60.7	27.3	12.1	9.1	3.0
1987	100.0	88.0	61.4	26.5	12.0	9.3	2.7
1988	100.0	88.5	62.7	25.7	11.5	8.9	2.7
1989	100.0	88.3	63.5	24.8	11.7	9.1	2.6
1990	100.0	89.0	64.6	24.4	11.3	8.8	2.5
1991	100.0	89.0	64.6	24.4	11.0	8.6	2.4
1992	100.0	88.8	64.4	24.4	11.2	8.8	2.4
1993	100.0	88.8	64.3	24.5	11.2	8.8	2.4
1994[3]	100.0	88.8	63.9	24.9	11.2	8.7	2.5
			Projected				
1995	100.0	88.8	63.7	25.2	11.2	8.7	2.5
1996	100.0	88.8	63.5	25.3	11.2	8.7	2.5
1997	100.0	88.8	63.4	25.4	11.2	8.7	2.5
1998	100.0	88.8	63.4	25.4	11.2	8.6	2.5
1999	100.0	88.8	63.3	25.5	11.2	8.6	2.5
2000	100.0	88.8	63.3	25.5	11.2	8.6	2.5
2001	100.0	88.8	63.3	25.5	11.2	8.6	2.5
2002	100.0	88.8	63.2	25.6	11.2	8.6	2.5
2003	100.0	88.8	63.1	25.7	11.2	8.6	2.6
2004	100.0	88.8	62.7	26.1	11.2	8.6	2.6
2005	100.0	88.9	62.1	26.8	11.1	8.5	2.7

[1] Beginning in fall 1980, data include estimates for the expanded universe of private schools.

[2] Includes most kindergarten and some nursery school students.

[3] Estimates based on preliminary data.

NOTE: The private school enrollment figures from years 1971-75, 1979, 1981-82, 1984, and 1986-92 are estimated. Projections are based on data through 1991. Because of rounding, details may not add up to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* table 3; *Projections of Education Statistics to 2005,* 1995, table 1.

Table 35-3 Enrollment in public elementary and secondary schools (in thousands), by region: Fall 1970–93

Fall of year	United States	Northeast		Midwest		South		West	
	Total number	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1970	45,893	9,859	21.5	12,935	28.2	14,759	32.2	8,339	18.2
1971	46,071	9,971	21.6	12,969	28.2	14,777	32.1	8,352	18.1
1972	45,726	9,961	21.8	12,868	28.1	14,632	32.0	8,262	18.1
1973	45,444	9,848	21.7	12,666	27.9	14,677	32.3	8,252	18.2
1974	45,073	9,755	21.6	12,510	27.8	14,626	32.5	8,180	18.2
1975	44,819	9,679	21.6	12,294	27.4	14,654	32.7	8,190	18.3
1976	43,310	9,464	21.9	12,097	27.9	14,578	33.7	8,171	18.9
1977	43,577	9,156	21.0	11,763	27.0	14,560	33.4	8,096	18.6
1978	42,550	8,828	20.7	11,320	26.6	14,431	33.9	7,970	18.7
1979	41,650	8,479	20.4	11,031	26.5	14,258	34.2	7,881	18.9
1980	40,877	8,214	20.1	10,697	26.2	14,133	34.6	7,831	19.2
1981	40,044	7,890	19.7	10,372	25.9	13,990	34.9	7,791	19.5
1982	39,565	7,674	19.4	10,139	25.6	13,945	35.2	7,806	19.7
1983	39,252	7,512	19.1	9,986	25.4	13,914	35.4	7,839	20.0
1984	39,208	7,395	18.9	9,888	25.2	13,962	35.6	7,961	20.3
1985	39,421	7,318	18.6	9,862	25.0	14,117	35.8	8,124	20.6
1986	39,753	7,294	18.3	9,870	24.8	14,311	36.0	8,276	20.8
1987	40,008	7,251	18.1	9,870	24.7	14,418	36.0	8,467	21.2
1988	40,188	7,207	17.9	9,845	24.5	14,491	36.1	8,644	21.5
1989	40,542	7,200	17.8	9,848	24.3	14,605	36.0	8,888	21.9
1990	[1]41,217	7,281	17.7	[1]9,944	[1]24.1	14,807	35.9	[1]9,184	[1]22.3
1991	[1]42,046	7,406	17.6	[1]10,079	[1]24.0	[1]15,081	[1]35.9	9,478	22.5
1992	[1]42,734	[1]7,526	[1]17.6	[1]10,198	[1]23.9	[1]15,326	[1]35.9	[1]9,682	[1]22.7
1993[2]	43,353	7,656	17.7	10,304	23.8	15,547	35.8	9,844	22.7

[1] Revised from previously published figures.

[2] Estimates based on preliminary data.

NOTE: Details may not add to totals due to rounding. Enrollment includes a relatively small number of prekindergarten students. The regions of the country for this indicator are those used by the Census Bureau in the Current Population Survey. The regions are as follows: Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont. Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin. South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia. West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 40.

Table 36-1 Total and full-time-equivalent (FTE) enrollment in higher education, by type and control of institution: Fall 1972–93

Fall of year	All institutions	Public, 4-year	Public, 2-year	Private, 4-year	Private, 2-year
			Total enrollment		
1972	9,214,860	4,429,696	2,640,939	2,028,978	115,247
1973	9,602,123	4,529,895	2,889,621	2,062,179	120,428
1974	10,223,729	4,703,018	3,285,482	2,116,717	118,512
1975	11,184,859	4,998,142	3,836,366	2,216,598	133,753
1976	11,012,137	4,901,691	3,751,786	2,227,125	131,535
1977	11,285,787	4,945,224	3,901,769	2,297,621	141,173
1978	11,260,092	4,912,203	3,873,690	2,319,748	154,451
1979	11,569,899	4,980,012	4,056,810	2,373,221	159,856
1980	12,096,895	5,128,612	4,328,782	2,441,996	197,505
1981	12,371,672	5,166,324	4,480,708	2,489,137	235,503
1982	12,425,780	5,176,434	4,519,653	2,477,640	252,053
1983	12,464,661	5,223,404	4,459,330	2,517,791	264,136
1984	12,241,940	5,198,273	4,279,097	2,512,894	251,676
1985	12,247,055	5,209,540	4,269,733	2,506,438	261,344
1986	12,503,511	5,300,202	4,413,691	2,523,761	265,857
1987	12,766,642	5,432,200	4,541,054	2,558,220	235,168
1988	13,055,337	5,545,901	4,615,487	2,634,281	259,668
1989	13,538,560	5,694,303	4,883,660	2,693,368	267,229
1990*	13,819,637	5,848,242	4,996,475	2,730,312	243,608
1991	14,358,953	5,904,748	5,404,815	2,802,305	247,085
1992*	14,486,315	5,900,012	5,484,555	2,863,913	237,835
1993	14,305,658	5,851,760	5,337,328	2,888,031	228,539
			Full-time-equivalent (FTE) enrollment		
1972	7,253,739	3,706,239	1,746,609	1,700,582	100,309
1973	7,453,448	3,721,031	1,908,524	1,718,187	105,706
1974	7,805,453	3,847,550	2,097,254	1,758,699	101,950
1975	8,479,685	4,056,500	2,465,810	1,843,901	113,474
1976	8,312,502	3,998,450	2,351,453	1,849,551	113,048
1977	8,415,339	4,039,071	2,357,405	1,896,005	122,858
1978	8,348,482	3,996,126	2,283,073	1,936,447	132,836
1979	8,487,317	4,059,304	2,333,313	1,956,768	137,932
1980	8,819,013	4,158,267	2,484,027	2,003,105	173,614
1981	9,014,521	4,208,506	2,572,794	2,041,341	191,880
1982	9,091,648	4,220,648	2,629,941	2,028,275	212,784
1983	9,166,399	4,265,808	2,615,672	2,059,415	225,504
1984	8,951,695	4,237,895	2,446,769	2,054,816	212,215
1985	8,943,433	4,239,622	2,428,159	2,054,717	220,935
1986	9,064,168	4,295,495	2,482,551	2,064,829	221,293
1987	9,229,736	4,395,731	2,541,958	2,090,779	201,267
1988	9,466,878	4,505,501	2,591,571	2,159,770	210,036
1989	9,780,881	4,619,828	2,751,762	2,193,774	215,517
1990	9,983,927	4,740,051	2,817,931	2,228,450	197,495
1991	10,360,606	4,795,704	3,067,141	2,285,750	212,011
1992*	10,435,759	4,797,884	3,113,817	2,330,478	193,580
1993	10,351,817	4,765,983	3,046,411	2,355,340	184,083

* Revised from previously published figures.

NOTE: Increases in enrollments in private 2-year institutions in 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 170 and 196 (based on the IPEDS/HEGIS surveys of fall enrollment, various years).

Table 36-2 Index of total and full-time-equivalent (FTE) enrollment (1981=100) in higher education, by type and control of institution: Fall 1972–93

Fall of year	All institutions	Public, 4-year	Public, 2-year	Private, 4-year	Private, 2-year
			Total enrollment		
1972	74.5	85.7	58.9	81.5	48.9
1973	77.6	87.7	64.5	82.8	51.1
1974	82.6	91.0	73.3	85.0	50.3
1975	90.4	96.7	85.6	89.1	56.8
1976	89.0	94.9	83.7	89.5	55.9
1977	91.2	95.7	87.1	92.3	59.9
1978	91.0	95.1	86.5	93.2	65.6
1979	93.5	96.4	90.5	95.3	67.9
1980	97.8	99.3	96.6	98.1	83.9
1981	100.0	100.0	100.0	100.0	100.0
1982	100.4	100.2	100.9	99.5	107.0
1983	100.8	101.1	99.5	101.2	112.2
1984	99.0	100.6	95.5	101.0	106.9
1985	99.0	100.8	95.3	100.7	111.0
1986	101.1	102.6	98.5	101.4	112.9
1987	103.2	105.1	101.3	102.8	99.9
1988	105.5	107.3	103.0	105.8	110.3
1989	109.4	110.2	109.0	108.2	113.5
1990	111.7	113.2	111.5	109.7	103.4
1991	116.1	114.3	120.6	112.6	104.9
1992	117.1	114.2	122.4	115.1	*101.0
1993	115.6	113.3	119.1	116.0	97.0
			Full-time-equivalent (FTE) enrollment		
1972	80.5	88.1	67.9	83.3	52.3
1973	82.7	88.4	74.2	84.2	55.1
1974	86.6	91.4	81.5	86.2	53.1
1975	94.1	96.4	95.8	90.3	59.1
1976	92.2	95.0	91.4	90.6	58.9
1977	93.4	96.0	91.6	92.9	64.0
1978	92.6	95.0	88.7	94.9	69.2
1979	94.2	96.5	90.7	95.9	71.9
1980	97.8	98.8	96.5	98.1	90.5
1981	100.0	100.0	100.0	100.0	100.0
1982	100.9	100.3	102.2	99.4	110.9
1983	101.7	101.4	101.7	100.9	117.5
1984	99.3	100.7	95.1	100.7	110.6
1985	99.2	100.7	94.4	100.7	115.1
1986	100.6	102.1	96.5	101.2	115.3
1987	102.4	104.4	98.8	102.4	104.9
1988	105.0	107.1	100.7	105.8	109.5
1989	108.5	109.8	107.0	107.5	112.3
1990	110.8	112.6	109.5	109.2	102.9
1991	114.9	114.0	119.2	112.0	110.5
1992	115.8	114.0	121.0	114.2	*100.9
1993	114.8	113.2	118.4	115.4	95.9

* Revised from previously published figures.

NOTE: Increases in enrollments in private 2-year institutions in 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 170 and 196 (based on the IPEDS/HEGIS surveys of fall enrollment, various years).

Table 36-3 **Percentage distribution of total and full-time-equivalent (FTE) enrollment in higher education, by type and control of institution: Fall 1972–93**

Fall of year	All institutions	Public, 4-year	Public, 2-year	Private, 4-year	Private, 2-year
			Total enrollment		
1972	100.0	48.1	28.7	22.0	1.3
1973	100.0	47.2	30.1	21.5	1.3
1974	100.0	46.0	32.1	20.7	1.2
1975	100.0	44.7	34.3	19.8	1.2
1976	100.0	44.5	34.1	20.2	1.2
1977	100.0	43.8	34.6	20.4	1.3
1978	100.0	43.6	34.4	20.6	1.4
1979	100.0	43.0	35.1	20.5	1.4
1980	100.0	42.4	35.8	20.2	1.6
1981	100.0	41.8	36.2	20.1	1.9
1982	100.0	41.7	36.4	19.9	2.0
1983	100.0	41.9	35.8	20.2	2.1
1984	100.0	42.5	35.0	20.5	2.1
1985	100.0	42.5	34.9	20.5	2.1
1986	100.0	42.4	35.3	20.2	2.1
1987	100.0	42.5	35.6	20.0	1.8
1988	100.0	42.5	35.4	20.2	2.0
1989	100.0	42.1	36.1	19.9	2.0
1990	100.0	42.3	36.2	19.8	1.8
1991	100.0	41.1	37.6	19.5	1.7
1992	100.0	40.7	37.9	19.8	1.6
1993	100.0	40.9	37.3	20.2	1.6
			Full-time-equivalent (FTE) enrollment		
1972	100.0	51.1	24.1	23.4	1.4
1973	100.0	49.9	25.6	23.1	1.4
1974	100.0	49.3	26.9	22.5	1.3
1975	100.0	47.8	29.1	21.7	1.3
1976	100.0	48.1	28.3	22.3	1.4
1977	100.0	48.0	28.0	22.5	1.5
1978	100.0	47.9	27.3	23.2	1.6
1979	100.0	47.8	27.5	23.1	1.6
1980	100.0	47.2	28.2	22.7	2.0
1981	100.0	46.7	28.5	22.6	2.1
1982	100.0	46.4	28.9	22.3	2.3
1983	100.0	46.5	28.5	22.5	2.5
1984	100.0	47.3	27.3	23.0	2.4
1985	100.0	47.4	27.2	23.0	2.5
1986	100.0	47.4	27.4	22.8	2.4
1987	100.0	47.6	27.5	22.7	2.2
1988	100.0	47.6	27.4	22.8	2.2
1989	100.0	47.2	28.1	22.4	2.2
1990	100.0	47.5	28.2	22.3	2.0
1991	100.0	46.3	29.6	22.1	2.0
1992	100.0	46.0	29.8	22.3	1.9
1993	100.0	46.0	29.4	22.8	1.8

NOTE: Increases in enrollments in private 2-year institutions in 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 170 and 196 (based on the IPEDS/HEGIS surveys of fall enrollment, various years).

Table 37-1 Number of degrees conferred, by degree level and number of high school completions: Academic years ending 1971–92

Year	Degrees					High school completions[2]
	Associate's	Bachelor's	Master's	Doctor's	First-professional[1]	
1971	252,610	839,730	230,509	32,107	37,946	—
1972	292,119	887,273	251,633	33,363	43,411	—
1973	316,174	922,362	263,371	34,777	50,018	—
1974	343,924	945,776	277,033	33,816	53,816	3,367,000
1975	360,171	922,933	292,450	34,083	55,916	3,473,000
1976	391,454	925,746	311,771	34,064	62,649	3,481,000
1977	406,377	919,549	317,164	33,232	64,359	3,487,000
1978	412,246	921,204	311,620	32,131	66,581	3,508,000
1979	402,702	921,390	301,079	32,730	68,848	3,543,000
1980	400,910	929,417	298,081	32,615	70,131	3,522,000
1981	416,377	935,140	295,739	32,958	71,956	3,509,000
1982	434,515	952,998	295,546	32,707	72,032	3,481,000
1983	456,441	969,510	289,921	32,775	73,136	3,353,000
1984	452,416	974,309	284,263	33,209	74,407	3,194,000
1985	454,712	979,477	286,251	32,943	75,063	3,090,000
1986	446,047	987,823	288,567	33,653	73,910	3,071,000
1987	[3]436,308	[3]991,264	[3]289,349	[3]34,041	[3]71,617	3,138,000
1988	435,085	994,829	299,317	34,870	70,735	3,210,000
1989	436,764	1,018,755	310,621	35,720	70,856	3,140,000
1990	455,102	1,051,344	324,301	38,371	70,988	3,019,000
1991	481,720	1,094,538	337,168	39,294	71,948	2,967,000
1992	504,231	1,136,553	352,838	40,659	74,146	2,928,000

— Not available.

[1] The National Center for Education Statistics recognizes 10 first-professional degree fields: chiropractic, dentistry, law, medicine, optometry, osteopathy, pharmacy, podiatry, theology, and veterinary medicine.

[2] High school completers are the graduates of regular public and private day school programs and the recipients of GED credentials. Data for GED recipients are not available before 1974.

[3] Revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* tables 99, 101, and 234 (based on IPEDS/HEGIS surveys of degrees conferred and Common Core of Data; American Council on Education, annual GED surveys).

Table 38-1 **Index of number of degrees conferred in the natural and computer sciences and engineering (1981=100), by degree level and field of study: Academic years ending 1971–92***

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Bachelor's degrees											
All fields	89.8	94.9	98.6	101.1	98.7	99.0	98.1	98.5	98.5	99.4	100.0
Total science and engineering	79.7	80.8	84.0	86.7	84.7	85.4	86.6	89.1	92.1	95.8	100.0
Natural sciences	104.4	104.1	109.6	116.1	115.7	117.1	115.1	111.4	107.4	103.9	100.0
Life sciences	82.7	86.3	97.7	111.9	119.7	125.6	124.0	119.2	113.0	107.3	100.0
Physical sciences	89.4	86.6	86.4	88.4	86.7	89.6	93.9	96.0	96.9	97.7	100.0
Mathematics	218.1	208.2	202.8	190.3	161.5	142.8	125.9	114.3	107.8	103.8	100.0
Computer sciences and engineering	58.2	60.5	61.7	61.1	57.6	57.7	61.8	69.7	78.9	88.8	100.0
Computer and information sciences	15.8	22.5	28.5	31.5	33.3	37.4	42.4	47.6	57.7	73.8	100.0
Engineering	66.7	68.2	68.4	67.0	62.5	61.8	65.7	74.2	83.2	91.9	100.0
Master's degrees											
All fields	77.9	85.1	89.1	93.7	98.9	105.4	107.2	105.4	101.8	100.8	100.0
Total science and engineering	101.6	104.5	103.9	102.4	98.7	100.1	100.9	101.1	97.5	99.3	100.0
Natural sciences	124.1	125.0	125.0	125.0	119.8	114.1	115.5	113.2	110.5	105.4	100.0
Life sciences	95.8	102.1	104.8	109.6	109.6	110.1	119.0	113.9	114.3	108.9	100.0
Physical sciences	120.5	119.0	118.4	114.7	109.9	103.4	100.9	105.2	103.2	98.8	100.0
Mathematics	185.3	180.1	175.6	172.6	156.7	140.4	133.7	125.6	115.6	110.0	100.0
Computer sciences and engineering	86.2	90.5	89.5	86.9	84.3	90.5	91.0	92.9	88.6	95.0	100.0
Computer and information sciences	37.6	46.9	50.1	54.0	54.5	61.7	66.3	72.0	72.4	86.5	100.0
Engineering	98.4	101.5	99.5	95.3	91.9	97.8	97.2	98.1	92.7	97.2	100.0
Doctor's degrees											
All fields	97.4	101.2	105.5	102.6	103.4	103.4	100.8	97.5	99.3	99.0	100.0
Total science and engineering	124.9	122.1	118.9	111.7	108.9	103.4	99.5	95.0	97.2	98.0	100.0
Natural sciences	121.6	116.9	114.4	106.9	105.6	101.3	99.5	95.5	97.1	98.1	100.0
Life sciences	98.0	98.3	97.8	92.5	91.0	91.2	91.4	89.0	95.3	97.8	100.0
Physical sciences	139.8	130.6	127.5	115.4	115.4	109.2	106.4	99.7	98.8	98.3	100.0
Mathematics	161.2	150.3	140.5	141.0	135.2	117.3	110.8	109.4	99.2	98.5	100.0
Computer sciences and engineering	133.9	136.4	131.1	124.8	118.1	109.0	99.6	93.7	97.5	97.7	100.0
Computer and information sciences	50.8	66.3	77.8	78.6	84.5	96.8	85.7	77.8	93.7	95.2	100.0
Engineering	142.1	143.3	136.4	129.3	121.4	110.2	101.0	95.3	97.9	97.9	100.0

Table 38-1 Index of number of degrees conferred in the natural and computer sciences and engineering (1981=100), by degree level and field of study: Academic years ending 1971–92*—Continued

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Bachelor's degrees											
All fields	101.9	103.7	104.2	104.7	105.6	106.0	106.4	108.9	112.4	117.0	121.5
Total science and engineering	105.6	112.4	120.0	126.1	127.4	123.0	115.1	109.5	104.9	103.7	104.8
Natural sciences	99.1	96.8	96.8	99.2	98.5	95.7	90.5	88.1	87.1	90.6	95.0
Life sciences	96.4	92.5	89.4	89.0	89.1	88.2	85.0	83.4	86.1	91.5	99.4
Physical sciences	100.4	97.6	98.7	99.0	90.7	83.8	74.3	71.8	67.1	68.2	70.8
Mathematics	106.9	111.2	120.4	138.7	150.0	148.7	145.3	139.9	132.7	133.9	129.3
Computer sciences and engineering	111.3	126.0	140.2	149.5	152.6	146.9	136.5	128.1	120.5	115.1	113.3
Computer and information sciences	134.0	162.1	212.8	257.1	277.0	261.8	228.3	201.4	180.3	165.9	162.4
Engineering	106.7	118.7	125.6	127.8	127.5	123.8	118.0	113.3	108.4	104.9	103.4
Master's degrees											
All fields	99.9	98.0	96.1	96.8	97.6	97.8	101.2	105.0	109.7	114.0	119.3
Total science and engineering	106.4	110.7	116.5	121.7	125.5	128.9	133.2	137.7	138.7	137.2	140.9
Natural sciences	102.2	100.3	99.2	99.5	101.3	99.8	100.3	101.8	100.9	98.5	98.8
Life sciences	98.3	95.3	90.4	84.6	83.9	82.8	80.0	83.0	81.4	79.7	80.0
Physical sciences	104.4	100.1	105.5	109.7	111.7	106.5	108.5	108.3	103.1	100.5	101.7
Mathematics	106.1	110.5	105.5	111.0	117.3	121.3	125.8	127.0	134.9	131.5	130.5
Computer sciences and engineering	109.3	117.9	128.3	136.9	142.1	148.8	155.7	162.4	164.6	163.8	169.7
Computer and information sciences	117.0	126.1	146.8	168.3	191.3	201.1	218.0	223.2	229.4	221.1	225.9
Engineering	107.4	115.8	123.6	129.0	129.6	135.6	140.0	147.0	148.3	149.4	155.5
Doctor's degrees											
All fields	99.2	99.4	100.8	100.0	102.1	103.3	105.8	108.4	116.4	119.2	123.4
Total science and engineering	101.8	99.9	102.6	105.7	109.5	115.3	123.0	128.0	139.6	147.1	153.0
Natural sciences	101.5	96.2	98.1	99.1	100.7	102.8	107.9	108.6	117.6	123.4	127.3
Life sciences	100.7	89.9	92.4	92.3	90.3	92.0	97.6	94.7	103.4	110.1	114.1
Physical sciences	104.6	104.1	105.3	108.3	113.1	116.9	121.3	122.8	132.6	136.6	139.8
Mathematics	93.0	94.3	95.9	94.7	100.3	97.9	102.7	118.1	124.6	133.7	139.6
Computer sciences and engineering	102.6	110.0	114.9	123.6	133.5	149.0	164.2	180.4	199.4	211.4	222.9
Computer and information sciences	99.6	104.0	99.6	98.4	136.5	148.4	169.8	218.7	248.8	268.3	306.3
Engineering	102.9	110.5	116.4	126.1	133.2	149.1	163.6	176.6	194.5	205.9	214.7

* Because of reclassification of Instructional Programs in 1991–92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: The engineering category includes degrees conferred in engineering technologies. At the bachelor's degree level, 21.1 percent of degrees in the engineering category for 1992 were conferred in engineering technologies, up from 15.6 percent in 1981 and 10.3 percent in 1971. Were engineering technologies excluded from the engineering category, the index of bachelor's degrees conferred in engineering for 1992 would be 96.7 and 70.9 in 1971.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 241, 242, and 243 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 38-2 Percentage of degrees conferred in the natural and computer sciences and engineering, by degree level and field of study: Academic years ending 1971–92*

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Bachelor's degrees											
Total science and engineering	16.0	15.4	15.4	15.5	15.5	15.6	15.9	16.3	16.9	17.4	18.0
Natural sciences	9.8	9.2	9.3	9.7	9.9	9.9	9.9	9.5	9.2	8.8	8.4
Life sciences	4.3	4.2	4.6	5.1	5.6	5.9	5.8	5.6	5.3	5.0	4.6
Physical sciences	2.5	2.3	2.2	2.2	2.3	2.3	2.5	2.5	2.5	2.5	2.6
Mathematics	3.0	2.7	2.5	2.3	2.0	1.8	1.6	1.4	1.3	1.3	1.2
Computer sciences and engineering	6.2	6.1	6.0	5.8	5.6	5.6	6.1	6.8	7.7	8.6	9.6
Computer and information sciences	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.2	1.6
Engineering	6.0	5.8	5.6	5.3	5.1	5.0	5.4	6.0	6.8	7.4	8.0
Master's degrees											
Total science and engineering	15.5	14.6	13.9	13.0	11.9	11.3	11.2	11.4	11.4	11.7	11.9
Natural sciences	7.7	7.1	6.8	6.5	5.9	5.2	5.2	5.2	5.3	5.1	4.8
Life sciences	2.5	2.4	2.4	2.4	2.2	2.1	2.2	2.2	2.3	2.2	2.0
Physical sciences	2.8	2.5	2.4	2.2	2.0	1.8	1.7	1.8	1.8	1.8	1.8
Mathematics	2.5	2.2	2.0	1.9	1.6	1.4	1.3	1.2	1.2	1.1	1.0
Computer sciences and engineering	7.8	7.5	7.1	6.6	6.0	6.1	6.0	6.2	6.2	6.7	7.1
Computer and information sciences	0.7	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.0	1.2	1.4
Engineering	7.1	6.7	6.3	5.7	5.2	5.2	5.1	5.3	5.1	5.4	5.6
Doctor's degrees											
Total science and engineering	40.6	38.2	35.7	34.5	33.4	31.7	31.3	30.9	31.0	31.4	31.7
Natural sciences	28.9	26.7	25.1	24.1	23.6	22.7	22.9	22.7	22.6	23.0	23.2
Life sciences	11.4	10.9	10.5	10.2	9.9	10.0	10.2	10.3	10.8	11.1	11.3
Physical sciences	13.7	12.3	11.5	10.7	10.6	10.1	10.1	9.8	9.5	9.5	9.5
Mathematics	3.9	3.5	3.1	3.2	3.1	2.7	2.6	2.6	2.3	2.3	2.4
Computer sciences and engineering	11.7	11.5	10.6	10.4	9.7	9.0	8.4	8.2	8.4	8.4	8.5
Computer and information sciences	0.4	0.5	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.8
Engineering	11.3	11.0	10.0	9.8	9.1	8.3	7.8	7.6	7.7	7.7	7.8

Table 38-2 Percentage of degrees conferred in the natural and computer sciences and engineering, by degree level and field of study: Academic years ending 1971–92*—Continued

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Bachelor's degrees											
Total science and engineering	18.7	19.6	20.8	21.7	21.8	20.9	19.5	18.1	16.8	16.0	15.6
Natural sciences	8.2	7.8	7.8	8.0	7.8	7.6	7.2	6.8	6.5	6.5	6.6
Life sciences	4.4	4.1	4.0	3.9	3.9	3.8	3.7	3.5	3.5	3.6	3.8
Physical sciences	2.5	2.4	2.4	2.4	2.2	2.0	1.8	1.7	1.5	1.5	1.5
Mathematics	1.3	1.3	1.4	1.6	1.7	1.7	1.7	1.6	1.4	1.4	1.3
Computer sciences and engineering	10.5	11.7	13.0	13.8	13.9	13.4	12.4	11.3	10.3	9.5	9.0
Computer and information sciences	2.1	2.5	3.3	4.0	4.2	4.0	3.5	3.0	2.6	2.3	2.2
Engineering	8.4	9.2	9.7	9.8	9.7	9.4	8.9	8.3	7.7	7.2	6.8
Master's degrees											
Total science and engineering	12.7	13.5	14.4	15.0	15.3	15.7	15.7	15.6	15.1	14.4	14.1
Natural sciences	5.0	5.0	5.0	5.0	5.0	4.9	4.8	4.7	4.5	4.2	4.0
Life sciences	2.0	2.0	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.4	1.4
Physical sciences	1.9	1.8	2.0	2.0	2.0	1.9	1.9	1.8	1.7	1.6	1.5
Mathematics	1.1	1.2	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.1
Computer sciences and engineering	7.7	8.5	9.4	10.0	10.3	10.8	10.9	10.9	10.6	10.2	10.1
Computer and information sciences	1.7	1.8	2.2	2.5	2.8	2.9	3.1	3.0	3.0	2.8	2.7
Engineering	6.1	6.7	7.3	7.5	7.5	7.8	7.8	7.9	7.6	7.4	7.4
Doctor's degrees											
Total science and engineering	32.5	31.8	32.3	33.5	34.0	35.4	36.9	37.4	38.0	39.1	39.3
Natural sciences	23.7	22.4	22.5	23.0	22.8	23.1	23.6	23.2	23.4	24.0	23.9
Life sciences	11.4	10.2	10.3	10.4	10.0	10.0	10.4	9.9	10.0	10.4	10.4
Physical sciences	10.0	10.0	10.0	10.3	10.6	10.8	10.9	10.8	10.9	10.9	10.8
Mathematics	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.6	2.5	2.6	2.7
Computer sciences and engineering	8.8	9.4	9.7	10.6	11.2	12.3	13.2	14.2	14.6	15.1	15.4
Computer and information sciences	0.8	0.8	0.8	0.8	1.0	1.1	1.2	1.5	1.6	1.7	1.9
Engineering	8.1	8.6	9.0	9.8	10.1	11.2	12.0	12.7	13.0	13.4	13.5

* Because of reclassification of Instructional Programs in 1991-92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: The engineering category includes degrees conferred in engineering technologies. At the bachelor's degree level, 21.1 percent of degrees in the engineering category for 1992 were conferred in engineering technologies, up from 15.6 percent in 1981 and 10.3 percent in 1971. Were engineering technologies excluded from the percentage of degrees conferred in engineering for 1992, the percentage of engineering degrees conferred at the bachelor's level would have been 5.4 percent, 6.8 percent in 1981, and 5.3 percent in 1971.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 241, 242, and 243 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 38-3 Number of degrees conferred in the natural and computer sciences and engineering, by degree level and field of study: Academic years ending 1971–92*

Field of study	1971	1972	1973	1974	1975	1976	1977	1978
Bachelor's degrees								
All fields	839,730	887,273	922,362	945,776	922,933	925,746	917,549	921,204
Total science and engineering	134,526	136,411	141,684	146,321	142,864	144,052	146,187	150,408
Natural sciences	82,092	81,845	86,115	91,279	90,979	92,069	90,497	87,553
Life sciences	35,743	37,293	42,233	48,340	51,741	54,275	53,605	51,502
Physical sciences	21,412	20,745	20,696	21,178	20,778	21,465	22,497	22,986
Mathematics	24,937	23,807	23,186	21,761	18,460	16,329	14,395	13,065
Computer sciences and engineering	52,434	54,566	55,569	55,042	51,885	51,983	55,690	62,855
Computer and information sciences	2,388	3,402	4,304	4,756	5,033	5,652	6,407	7,201
Engineering	50,046	51,164	51,265	50,286	46,852	46,331	49,283	55,654
Master's degrees								
All fields	230,509	251,633	263,371	277,033	292,450	311,771	317,164	311,620
Total science and engineering	35,821	36,862	36,649	36,115	34,820	35,308	35,597	35,665
Natural sciences	17,790	17,925	17,917	17,920	17,173	16,363	16,554	16,229
Life sciences	5,728	6,101	6,263	6,552	6,550	6,582	7,114	6,806
Physical sciences	6,367	6,287	6,257	6,062	5,807	5,466	5,331	5,561
Mathematics	5,695	5,537	5,397	5,306	4,816	4,315	4,109	3,862
Computer sciences and engineering	18,031	18,937	18,732	18,195	17,647	18,945	19,043	19,436
Computer and information sciences	1,588	1,977	2,113	2,276	2,299	2,603	2,798	3,038
Engineering	16,443	16,960	16,619	15,919	15,348	16,342	16,245	16,398
Doctor's degrees								
All fields	32,107	33,363	34,777	33,816	34,083	34,064	33,232	32,131
Total science and engineering	13,050	12,759	12,419	11,668	11,379	10,797	10,399	9,926
Natural sciences	9,284	8,921	8,731	8,158	8,058	7,732	7,597	7,290
Life sciences	3,645	3,653	3,636	3,439	3,384	3,392	3,397	3,309
Physical sciences	4,390	4,103	4,006	3,626	3,626	3,431	3,341	3,133
Mathematics	1,249	1,165	1,089	1,093	1,048	909	859	848
Computer sciences and engineering	3,766	3,838	3,688	3,510	3,321	3,065	2,802	2,636
Computer and information sciences	128	167	196	198	213	244	216	196
Engineering	3,638	3,671	3,492	3,312	3,108	2,821	2,586	2,440

Table 38-3 Number of degrees conferred in the natural and computer sciences and engineering, by degree level and field of study: Academic years ending 1971–92*—Continued

Field of study	1979	1980	1981	1982	1983	1984	1985	1986
Bachelor's degrees								
All fields	921,390	929,417	935,140	952,998	969,510	974,309	979,477	987,823
Total science and engineering	155,476	161,699	168,722	178,189	189,610	202,412	212,716	214,937
Natural sciences	84,382	81,652	78,601	77,917	76,082	76,055	78,010	77,388
Life sciences	48,846	46,370	43,216	41,639	39,982	38,640	38,445	38,524
Physical sciences	23,207	23,410	23,952	24,052	23,381	23,651	23,704	21,717
Mathematics	12,329	11,872	11,433	12,226	12,719	13,764	15,861	17,147
Computer sciences and engineering	71,094	80,047	90,121	100,272	113,528	126,357	134,706	137,549
Computer and information sciences	8,719	11,154	15,121	20,267	24,510	32,172	38,878	41,889
Engineering	62,375	68,893	75,000	80,005	89,018	94,185	95,828	95,660
Master's degrees								
All fields	301,079	298,081	295,739	295,546	289,921	284,263	286,251	288,567
Total science and engineering	34,385	35,001	35,263	37,525	39,049	41,071	42,924	44,249
Natural sciences	15,835	15,111	14,336	14,651	14,384	14,226	14,268	14,522
Life sciences	6,831	6,510	5,978	5,874	5,696	5,406	5,059	5,013
Physical sciences	5,451	5,219	5,284	5,514	5,290	5,576	5,796	5,902
Mathematics	3,553	3,382	3,074	3,263	3,398	3,244	3,413	3,607
Computer sciences and engineering	18,550	19,890	20,927	22,874	24,665	26,845	28,656	29,727
Computer and information sciences	3,055	3,647	4,218	4,935	5,321	6,190	7,101	8,070
Engineering	15,495	16,243	16,709	17,939	19,344	20,655	21,555	21,657
Doctor's degrees								
All fields	32,730	32,615	32,958	32,707	32,775	33,209	32,943	33,653
Total science and engineering	10,155	10,235	10,447	10,637	10,434	10,718	11,047	11,440
Natural sciences	7,413	7,488	7,634	7,750	7,341	7,486	7,569	7,686
Life sciences	3,542	3,636	3,718	3,743	3,341	3,437	3,432	3,358
Physical sciences	3,102	3,089	3,141	3,286	3,269	3,306	3,403	3,551
Mathematics	769	763	775	721	731	743	734	777
Computer sciences and engineering	2,742	2,747	2,813	2,887	3,093	3,232	3,478	3,754
Computer and information sciences	236	240	252	251	262	251	248	344
Engineering	2,506	2,507	2,561	2,636	2,831	2,981	3,230	3,410

Table 38-3 Number of degrees conferred in the natural and computer sciences and engineering, by degree level and field of study: Academic years ending 1971–92*—Continued

Field of study	1987	1988	1989	1990	1991	1992
Bachelor's degrees						
All fields	991,264	994,829	1,018,755	1,051,344	1,094,538	1,136,553
Total science and engineering	207,595	194,198	184,695	177,025	174,917	176,782
Natural sciences	75,190	71,169	69,239	68,446	71,184	74,684
Life sciences	38,121	36,755	36,059	37,204	39,530	42,941
Physical sciences	20,070	17,806	17,186	16,066	16,344	16,960
Mathematics	16,999	16,608	15,994	15,176	15,310	14,783
Computer sciences and engineering	132,405	123,029	115,456	108,579	103,733	102,098
Computer and information sciences	39,589	34,523	30,454	27,257	25,083	24,557
Engineering	92,816	88,506	85,002	81,322	78,650	77,541
Master's degrees						
All fields	289,349	299,317	310,621	324,301	337,168	352,838
Total science and engineering	45,446	46,966	48,569	48,913	48,397	49,677
Natural sciences	14,311	14,384	14,587	14,464	14,115	14,170
Life sciences	4,952	4,784	4,961	4,869	4,765	4,785
Physical sciences	5,629	5,733	5,723	5,449	5,309	5,374
Mathematics	3,730	3,867	3,903	4,146	4,041	4,011
Computer sciences and engineering	31,135	32,582	33,982	34,449	34,282	35,507
Computer and information sciences	8,481	9,197	9,414	9,677	9,324	9,530
Engineering	22,654	23,385	24,568	24,772	24,958	25,977
Doctor's degrees						
All fields	34,041	34,870	35,720	38,371	39,294	40,659
Total science and engineering	12,043	12,853	13,367	14,582	15,367	15,987
Natural sciences	7,851	8,234	8,293	8,974	9,419	9,716
Life sciences	3,419	3,629	3,520	3,844	4,093	4,243
Physical sciences	3,673	3,809	3,858	4,164	4,290	4,391
Mathematics	759	796	915	966	1,036	1,082
Computer sciences and engineering	4,192	4,619	5,074	5,608	5,948	6,271
Computer and information sciences	374	428	551	627	676	772
Engineering	3,818	4,191	4,523	4,981	5,272	5,499

* Because of reclassification of Instructional Programs in 1991-92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

NOTE: The engineering category includes degrees conferred in engineering technologies. Excluding engineering technologies, the number of bachelor's degrees conferred in engineering was 61,206 in 1992, 63,287 in 1981, and 44,898 in 1971.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 241, 242, and 243 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 38-4 Percentage of degrees conferred in the natural and computer sciences and engineering to foreign students,[1] by degree level and field of study: Selected academic years ending 1977–92

Field of study	1977	1979	1981	1985	1987	1989	1990	1991[2]	1992[2]
Bachelor's degrees									
Number	15,703	17,831	22,589	29,217	29,306	27,036	26,708	29,134	28,079
All fields	1.7	1.9	2.4	3.0	3.0	2.7	2.5	2.7	2.5
Total science and engineering	4.0	4.6	5.8	5.7	5.7	5.5	5.5	5.5	5.0
Natural sciences	2.1	2.3	2.7	3.2	3.0	3.0	2.9	3.2	2.9
Life sciences	1.9	1.8	2.1	2.4	2.3	2.5	2.4	2.7	2.3
Physical sciences	2.6	3.0	3.1	3.3	3.3	3.6	3.6	3.7	3.6
Mathematics	2.2	3.1	4.1	5.1	4.1	3.6	3.6	3.9	4.0
Computer sciences and engineering	7.0	7.3	8.6	7.1	7.3	6.9	7.0	7.0	6.6
Computer and information sciences	4.2	4.3	5.1	5.5	6.7	7.3	7.5	8.1	8.1
Engineering	7.4	7.7	9.3	7.8	7.5	6.8	6.9	6.7	6.1
Master's degrees									
Number	17,338	19,405	22,057	26,952	29,898	34,214	35,699	36,523	38,906
All fields	5.5	6.5	7.5	9.6	10.3	11.0	11.1	11.5	11.2
Total science and engineering	15.6	18.1	20.7	23.7	24.1	27.2	27.8	28.6	29.5
Natural sciences	9.3	10.8	11.8	16.7	18.2	21.4	22.9	23.8	24.4
Life sciences	6.7	6.8	6.2	9.5	10.8	13.6	15.4	15.8	16.6
Physical sciences	12.4	13.1	15.0	19.4	19.9	23.0	25.7	28.4	28.7
Mathematics	10.0	15.6	18.1	24.2	26.5	29.9	28.8	27.1	27.9
Computer sciences and engineering	21.0	24.2	26.7	27.2	26.7	29.6	29.8	30.5	31.6
Computer and information sciences	13.4	15.6	21.8	24.6	26.1	29.2	27.5	30.3	33.3
Engineering	22.3	25.9	27.9	28.0	27.0	29.8	30.6	30.6	30.9
Doctor's degrees									
Number	3,747	3,915	4,203	5,317	6,587	7,675	8,959	9,715	10,566
All fields	11.3	12.0	12.8	16.5	19.4	21.5	23.5	25.2	26.4
Total science and engineering	18.6	18.9	19.3	25.6	31.1	36.7	39.8	42.1	42.6
Natural sciences	13.7	13.5	13.1	17.6	23.3	26.5	30.1	33.6	34.2
Life sciences	10.1	9.7	7.8	11.2	15.4	16.0	19.8	24.6	25.6
Physical sciences	15.9	15.7	16.9	20.2	26.6	47.7	51.6	51.5	51.0
Mathematics	19.4	22.2	23.8	36.3	44.0	47.7	51.6	51.5	51.0
Computer sciences and engineering	32.0	33.6	36.0	43.0	45.5	47.3	49.6	50.9	51.2
Computer and information sciences	20.8	20.3	20.6	29.2	33.7	37.9	43.4	43.5	45.2
Engineering	32.9	34.8	37.5	44.0	46.7	48.5	50.3	51.9	52.1

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[1] Foreign students are non-U.S. citizens on temporary visas. American students include non-U.S. citizens with permanent U.S. visas.

[2] Because of reclassification of Instructional Programs in 1991–92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS/HEGIS surveys of degrees conferred).

Table 39-1 Number of bachelor's degrees conferred, by field of study: Academic years ending 1971–92*

Field of study	1971	1972	1973	1974	1975	1976	1977
Total	**839,730**	**887,273**	**922,362**	**945,776**	**922,933**	**925,746**	**917,549**
Humanities and social/behavioral sciences	337,022	350,651	357,170	358,412	338,924	327,289	311,116
Humanities	143,511	149,158	153,260	155,953	152,489	150,615	146,215
Social and behavioral sciences	193,511	201,493	203,910	202,459	186,435	176,674	164,901
Natural sciences	82,092	81,845	86,115	91,279	90,979	92,069	90,497
Life sciences	35,743	37,293	42,233	48,340	51,741	54,275	53,605
Physical sciences	21,412	20,745	20,696	21,178	20,778	21,465	22,497
Mathematics	24,937	23,807	23,186	21,761	18,460	16,329	14,395
Computer sciences and engineering	52,434	54,566	55,569	55,042	51,885	51,983	55,690
Computer and information sciences	2,388	3,402	4,304	4,756	5,033	5,652	6,407
Engineering and engineering technologies	50,046	51,164	51,265	50,286	46,852	46,331	49,283
Engineering	44,898	45,392	46,411	42,840	39,388	38,388	40,936
Engineering technologies	5,148	5,772	4,854	7,446	7,464	7,943	8,347
Technical/professional	368,182	400,211	423,508	440,479	441,145	454,405	460,246
Education	176,307	190,880	193,984	184,907	166,758	154,437	143,234
Business management	114,729	121,266	126,144	131,640	132,731	142,034	148,765
Health sciences	25,226	28,611	33,564	41,459	49,090	53,958	57,328
Other technical/professional	51,920	59,454	69,816	82,473	92,566	103,976	110,919
Not classified in a field of study	0	0	0	0	0	0	0

Field of study	1978	1979	1980	1981	1982	1983	1984
Total	**921,204**	**921,390**	**929,417**	**935,140**	**952,998**	**969,510**	**974,309**
Humanities and social/behavioral sciences	300,998	288,705	281,866	275,582	276,479	269,225	267,406
Humanities	143,167	137,949	136,111	134,001	135,562	133,537	134,128
Social and behavioral sciences	157,831	150,756	145,755	141,581	140,917	135,688	133,278
Natural sciences	87,553	84,382	81,652	78,601	77,917	76,082	76,055
Life sciences	51,502	48,846	46,370	43,216	41,639	39,982	38,640
Physical sciences	22,986	23,207	23,410	23,952	24,052	23,381	23,651
Mathematics	13,065	12,329	11,872	11,433	12,226	12,719	13,764
Computer sciences and engineering	62,855	71,094	80,047	90,121	100,272	113,528	126,357
Computer and information sciences	7,201	8,719	11,154	15,121	20,267	24,510	32,172
Engineering and engineering technologies	55,654	62,375	68,893	75,000	80,005	89,018	94,185
Engineering	46,869	53,021	58,402	63,287	67,021	72,163	75,638
Engineering technologies	8,785	9,354	10,491	11,713	12,984	16,855	18,547
Technical/professional	469,798	477,209	485,852	490,836	498,290	510,675	504,479
Education	135,821	125,873	118,038	108,074	100,932	97,895	92,299
Business management	159,691	171,241	184,867	198,983	213,374	226,627	229,478
Health sciences	59,434	62,085	63,920	63,649	63,653	64,685	64,288
Other technical/professional	114,852	118,010	119,027	120,130	120,331	121,468	118,414
Not classified in a field of study	0	0	0	0	0	0	0

Table 39-1 Number of bachelor's degrees conferred, by field of study: Academic years ending 1971–92*—Continued

Field of study	1985	1986	1987	1988	1989	1990	1991	1992
Total	**979,477**	**987,823**	**991,264**	**994,829**	**1,018,755**	**1,051,344**	**1,094,538**	**1,136,553**
Humanities and social/behavioral sciences	263,883	267,094	276,060	286,304	306,852	332,807	356,021	383,281
Humanities	132,413	132,626	136,724	140,657	149,791	160,772	172,259	185,794
Social and behavioral sciences	131,470	134,468	139,336	145,647	157,061	172,035	183,762	197,487
Natural sciences	78,010	77,388	75,190	71,169	69,239	68,446	71,184	74,684
Life sciences	38,445	38,524	38,121	36,755	36,059	37,204	39,530	42,941
Physical sciences	23,704	21,717	20,070	17,806	17,186	16,066	16,344	16,960
Mathematics	15,861	17,147	16,999	16,608	15,994	15,176	15,310	14,783
Computer sciences and engineering	134,706	137,549	132,405	123,029	115,456	108,579	103,733	102,098
Computer and information sciences	38,878	41,889	39,589	34,523	30,454	27,257	25,083	24,557
Engineering and engineering technologies	95,828	95,660	92,816	88,506	85,002	81,322	78,650	77,541
Engineering	77,066	76,225	73,747	69,380	66,099	63,609	61,531	61,206
Engineering technologies	18,762	19,435	19,069	19,126	18,903	17,713	17,119	16,335
Technical/professional	492,878	505,752	507,609	512,526	524,803	538,799	550,342	569,770
Education	88,072	87,114	86,936	91,112	96,913	105,112	110,807	108,006
Business management	232,636	237,319	240,546	243,021	246,399	248,698	249,311	256,603
Health sciences	64,422	64,396	63,103	60,644	59,005	58,302	59,070	61,720
Other technical/professional	107,748	116,923	117,024	117,749	122,486	126,687	131,154	143,441
Not classified in a field of study	0	0	0	1,801	2,405	2,713	13,258	6,720

* Because of reclassification of Instructional Programs in 1991-92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 241 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 39-2 Index of the number of bachelor's degrees conferred (1981=100), by field of study: Academic years ending 1971–92

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Total	**89.8**	**94.9**	**98.6**	**101.1**	**98.7**	**99.0**	**98.1**	**98.5**	**98.5**	**99.4**	**100.0**
Humanities and social/behavioral sciences	122.3	127.2	129.6	130.1	123.0	118.8	112.9	109.2	104.8	102.3	100.0
Humanities	107.1	111.3	114.4	116.4	113.8	112.4	109.1	106.8	102.9	101.6	100.0
Social and behavioral sciences	136.7	142.3	144.0	143.0	131.7	124.8	116.5	111.5	106.5	102.9	100.0
Natural sciences	104.4	104.1	109.6	116.1	115.7	117.1	115.1	111.4	107.4	103.9	100.0
Life sciences	82.7	86.3	97.7	111.9	119.7	125.6	124.0	119.2	113.0	107.3	100.0
Physical sciences	89.4	86.6	86.4	88.4	86.7	89.6	93.9	96.0	96.9	97.7	100.0
Mathematics	218.1	208.2	202.8	190.3	161.5	142.8	125.9	114.3	107.8	103.8	100.0
Computer sciences and engineering	58.2	60.5	61.7	61.1	57.6	57.7	61.8	69.7	78.9	88.8	100.0
Computer and information sciences	15.8	22.5	28.5	31.5	33.3	37.4	42.4	47.6	57.7	73.8	100.0
Engineering and engineering technologies	66.7	68.2	68.4	67.0	62.5	61.8	65.7	74.2	83.2	91.9	100.0
Engineering	70.9	71.7	73.3	67.7	62.2	60.7	64.7	74.1	83.8	92.3	100.0
Engineering technologies	44.0	49.3	41.4	63.6	63.7	67.8	71.3	75.0	79.9	89.6	100.0
Technical/professional	75.0	81.5	86.3	89.7	89.9	92.6	93.8	95.7	97.2	99.0	100.0
Education	163.1	176.6	179.5	171.1	154.3	142.9	132.5	125.7	116.5	109.2	100.0
Business management	57.7	60.9	63.4	66.2	66.7	71.4	74.8	80.3	86.1	92.9	100.0
Health sciences	39.6	45.0	52.7	65.1	77.1	84.8	90.1	93.4	97.5	100.4	100.0
Other technical/professional	43.2	49.5	58.1	68.7	77.1	86.6	92.3	95.6	98.2	99.0	100.0
Not classified in a field of study	—	—	—	—	—	—	—	—	—	—	—

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total	**101.9**	**103.7**	**104.2**	**104.7**	**105.6**	**106.0**	**106.4**	**108.9**	**112.4**	**117.0**	**121.5**
Humanities and social/behavioral sciences	100.3	97.7	97.0	95.8	96.9	100.2	103.9	111.3	120.8	129.2	139.1
Humanities	101.2	99.7	100.1	98.8	99.0	102.0	105.0	111.8	120.0	128.6	138.7
Social and behavioral sciences	99.5	95.8	94.1	92.9	95.0	98.4	102.9	110.9	121.5	129.8	139.5
Natural sciences	99.1	96.8	96.8	99.2	98.5	95.7	90.5	88.1	87.1	90.6	95.0
Life sciences	96.4	92.5	89.4	89.0	89.1	88.2	85.0	83.4	86.0	91.5	99.4
Physical sciences	100.4	97.6	98.7	99.0	90.7	83.8	74.3	71.8	67.1	68.2	70.8
Mathematics	106.9	111.2	120.4	138.7	150.0	148.7	145.3	139.9	132.7	133.9	129.3
Computer sciences and engineering	111.3	126.0	140.2	149.5	152.6	146.9	136.5	128.1	120.5	115.1	113.3
Computer and information sciences	134.0	162.1	212.8	257.1	277.0	261.8	228.3	201.4	180.3	165.9	162.4
Engineering and engineering technologies	106.7	118.7	125.6	127.8	127.5	123.8	118.0	113.3	108.4	104.9	103.4
Engineering	105.9	114.0	119.5	121.8	120.4	116.5	109.6	104.4	100.5	97.2	96.7
Engineering technologies	110.9	143.9	158.3	160.2	165.9	162.8	163.3	161.4	151.2	146.2	139.5
Technical/professional	101.5	104.0	102.8	100.4	103.0	103.4	104.4	106.9	109.8	112.1	116.1
Education	93.4	90.6	85.4	81.5	80.6	80.4	84.3	89.7	97.3	102.5	99.9
Business management	107.2	113.9	115.3	116.9	119.3	120.9	122.1	123.8	125.0	125.3	129.0
Health sciences	100.0	101.6	101.0	101.2	101.2	99.1	95.3	92.7	91.6	92.8	97.0
Other technical/professional	100.2	101.1	98.6	89.7	97.3	97.4	98.0	102.0	105.5	109.2	119.4
Not classified in a field of study	—	—	—	—	—	—	—	—	—	—	—

— Not applicable.

NOTE: Because of reclassification of Instructional Programs in 1991–92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 241 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 39-3 Percentage distribution of bachelor's degrees conferred, by field of study: Academic years ending 1971–92*

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Humanities and social/behavioral sciences	40.1	39.5	38.7	37.9	36.7	35.4	33.9	32.7	31.3	30.3	29.5
Humanities	17.1	16.8	16.6	16.5	16.5	16.3	15.9	15.5	15.0	14.6	14.3
Social and behavioral sciences	23.0	22.7	22.1	21.4	20.2	19.1	18.0	17.1	16.4	15.7	15.1
Natural sciences	9.8	9.2	9.3	9.7	9.9	9.9	9.9	9.5	9.2	8.8	8.4
Life sciences	4.3	4.2	4.6	5.1	5.6	5.9	5.8	5.6	5.3	5.0	4.6
Physical sciences	2.5	2.3	2.2	2.2	2.3	2.3	2.5	2.5	2.5	2.5	2.6
Mathematics	3.0	2.7	2.5	2.3	2.0	1.8	1.6	1.4	1.3	1.3	1.2
Computer sciences and engineering	6.2	6.1	6.0	5.8	5.6	5.6	6.1	6.8	7.7	8.6	9.6
Computer and information sciences	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.2	1.6
Engineering and engineering technologies	6.0	5.8	5.6	5.3	5.1	5.0	5.4	6.0	6.8	7.4	8.0
Engineering	5.3	5.1	5.0	4.5	4.3	4.1	4.5	5.1	5.8	6.3	6.8
Engineering technologies	0.6	0.7	0.5	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.3
Technical/professional	43.8	45.1	45.9	46.6	47.8	49.1	50.2	51.0	51.8	52.3	52.5
Education	21.0	21.5	21.0	19.6	18.1	16.7	15.6	14.7	13.7	12.7	11.6
Business management	13.7	13.7	13.7	13.9	14.4	15.3	16.2	17.3	18.6	19.9	21.3
Health sciences	3.0	3.2	3.6	4.4	5.3	5.8	6.2	6.5	6.7	6.9	6.8
Other technical/professional	6.2	6.7	7.6	8.7	10.0	11.2	12.1	12.5	12.8	12.8	12.8
Not classified in a field of study	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Field of study	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Humanities and social/behavioral sciences	29.0	27.8	27.4	26.9	27.0	27.8	28.8	30.1	31.7	32.5	33.7
Humanities	14.2	13.8	13.8	13.5	13.4	13.8	14.1	14.7	15.3	15.7	16.3
Social and behavioral sciences	14.8	14.0	13.7	13.4	13.6	14.1	14.6	15.4	16.4	16.8	17.4
Natural sciences	8.2	7.8	7.8	8.0	7.8	7.6	7.2	6.8	6.5	6.5	6.6
Life sciences	4.4	4.1	4.0	3.9	3.9	3.8	3.7	3.5	3.5	3.6	3.8
Physical sciences	2.5	2.4	2.4	2.4	2.2	2.0	1.8	1.7	1.5	1.5	1.5
Mathematics	1.3	1.3	1.4	1.6	1.7	1.7	1.7	1.6	1.4	1.4	1.3
Computer sciences and engineering	10.5	11.7	13.0	13.8	13.9	13.4	12.4	11.3	10.3	9.5	9.0
Computer and information sciences	2.1	2.6	3.3	4.0	4.2	4.0	3.5	3.0	2.6	2.3	2.2
Engineering and engineering technologies	8.4	9.2	9.7	9.8	9.7	9.4	8.9	8.3	7.7	7.2	6.8
Engineering	7.0	7.4	7.8	7.9	7.7	7.4	7.0	6.5	6.1	5.6	5.4
Engineering technologies	1.4	1.7	1.9	1.9	2.0	1.9	1.9	1.9	1.7	1.6	1.4
Technical/professional	52.3	52.7	51.8	50.3	51.2	51.2	51.5	51.5	51.2	50.3	50.1
Education	10.6	10.1	9.5	9.0	8.8	8.8	9.2	9.5	10.0	10.1	9.5
Business management	22.4	23.4	23.6	23.8	24.0	24.3	24.4	24.2	23.7	22.8	22.6
Health sciences	6.7	6.7	6.6	6.6	6.5	6.4	6.1	5.8	5.5	5.4	5.4
Other technical/professional	12.6	12.5	12.2	11.0	11.8	11.8	11.8	12.0	12.1	12.0	12.6
Not classified in a field of study	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	1.2	0.6

* Because of reclassification of Instructional Programs in 1991–92, the figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. Therefore, most numbers shown are revised from previously published figures. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* table 241 (based on IPEDS/HEGIS surveys of degrees conferred).

Table 39-4 Number of bachelor's degrees conferred, by race/ethnicity and field of study: Selected academic years ending 1977–92

Race/ethnicity and field of study	1977	1979	1981	1985	1987	1989	1991[1]	1992[1]
White								
Total degrees	**805,186**	**799,617**	**807,319**	**826,106**	**841,820**	**859,699**	**904,062**	**936,771**
Humanities and social/behavioral sciences	271,490	249,100	238,522	224,152	237,293	262,603	301,946	320,841
Humanities	130,327	120,305	118,286	113,084	118,620	129,701	147,970	157,513
Social and behavioral sciences	141,163	128,795	120,236	111,068	118,673	132,902	153,976	163,328
Natural sciences	80,313	73,523	67,967	64,629	61,994	55,845	56,948	59,129
Life sciences	47,623	42,705	37,276	31,807	31,279	28,874	30,994	33,179
Physical sciences	20,189	20,650	21,246	20,660	17,159	14,492	13,500	14,044
Mathematics	12,501	10,168	9,445	12,162	13,556	12,479	12,454	11,906
Computer sciences and engineering	46,864	59,178	73,413	107,759	103,539	88,927	77,839	76,427
Computer and information sciences	5,473	7,384	12,565	31,321	30,251	22,366	17,903	17,311
Engineering[2]	41,391	51,794	60,848	76,438	73,288	66,561	59,936	59,116
Technical/professional	406,519	417,816	427,417	429,566	438,994	452,324	467,329	480,374
Education	125,148	108,949	93,724	77,531	78,216	88,276	100,141	97,460
Health sciences	51,513	55,746	56,790	55,501	55,410	51,053	49,876	52,281
Business management	132,814	150,759	174,198	196,915	205,118	208,325	206,308	209,768
Other technical/professional	97,044	102,362	102,705	99,619	100,250	104,670	111,004	120,865
Black								
Total degrees	**58,515**	**60,130**	**60,673**	**57,473**	**56,555**	**58,065**	**65,341**	**72,326**
Humanities and social/behavioral sciences	20,107	19,266	18,045	15,272	15,060	16,384	20,222	23,157
Humanities	6,567	7,014	6,608	6,505	6,583	7,022	8,300	9,698
Social and behavioral sciences	13,540	12,252	11,437	8,767	8,477	9,362	11,922	13,459
Natural sciences	3,785	3,830	3,759	3,640	3,622	3,447	3,794	4,180
Life sciences	2,413	2,487	2,269	2,045	1,932	1,942	2,154	2,428
Physical sciences	665	691	906	829	844	704	772	836
Mathematics	707	652	584	766	846	801	868	916
Computer sciences and engineering	1,729	2,261	3,235	5,302	6,429	5,752	5,528	5,742
Computer and information sciences	361	505	786	2,143	2,928	2,533	2,063	2,147
Engineering[2]	1,368	1,756	2,449	3,159	3,501	3,219	3,465	3,595
Technical/professional	32,894	34,773	35,634	33,259	31,444	32,482	35,797	39,247
Education	12,922	11,509	9,494	5,456	4,253	4,245	4,816	5,226
Business management	9,976	11,430	13,400	14,999	14,686	15,105	4,209	4,222
Health sciences	3,135	3,380	3,603	3,836	3,822	3,981	16,648	18,304
Other technical/professional	6,861	8,454	9,137	8,968	8,683	9,151	10,124	11,495
Hispanic								
Total degrees	**18,663**	**20,029**	**21,832**	**25,874**	**26,990**	**29,910**	**36,612**	**40,761**
Humanities and social/behavioral sciences	7,764	7,594	7,754	8,049	8,468	10,412	13,438	16,386
Humanities	3,537	3,469	3,561	3,872	4,184	4,950	6,362	7,751
Social and behavioral sciences	4,227	4,125	4,193	4,177	4,284	5,462	7,076	8,635
Natural sciences	1,534	1,642	1,734	1,915	1,951	1,956	2,294	2,510
Life sciences	981	1,109	1,144	1,241	1,259	1,258	1,503	1,673
Physical sciences	332	339	405	417	423	386	390	382
Mathematics	221	194	185	257	269	312	401	455
Computer sciences and engineering	980	1,272	1,735	3,068	3,630	3,343	3,550	3,548
Computer and information sciences	93	155	302	826	1,077	896	917	901
Engineering[2]	887	1,117	1,433	2,242	2,553	2,447	2,633	2,647
Technical/professional	8,385	9,521	10,609	12,842	12,941	14,199	17,330	18,317
Education	3,050	3,029	2,847	2,533	2,223	2,281	3,503	3,116
Business management	2,588	3,196	4,114	5,771	6,397	7,017	1,709	1,765
Health sciences	863	1,066	1,153	1,550	1,332	1,397	7,831	8,466
Other technical/professional	1,884	2,230	2,495	2,988	2,989	3,504	4,287	4,970

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Table 39-4 Number of bachelor's degrees conferred, by race/ethnicity and field of study: Selected academic years ending 1977–92—Continued

Race/ethnicity and field of study	1977	1979	1981	1985	1987	1989	1991[1]	1992[1]
Asian/Pacific Islander								
Total degrees	**13,745**	**15,336**	**18,794**	**25,395**	**32,618**	**37,686**	**41,618**	**46,720**
Humanities and social/behavioral sciences	4,442	4,400	4,807	5,618	7,895	10,108	12,022	14,032
Humanities	1,993	2,032	2,323	2,754	3,765	4,572	5,457	6,368
Social and behavioral sciences	2,449	2,368	2,484	2,864	4,130	5,536	6,565	7,664
Natural sciences	1,996	2,204	2,476	3,593	4,588	4,914	5,580	6,381
Life sciences	1,314	1,458	1,489	1,950	2,620	2,954	3,634	4,488
Physical sciences	367	425	596	763	918	931	1,004	1,025
Mathematics	315	321	391	880	1,050	1,029	942	868
Computer sciences and engineering	1,362	2,099	3,735	7,057	9,043	9,264	9,202	9,323
Computer and information sciences	163	262	669	2,044	2,546	2,361	2,075	2,140
Engineering[2]	1,199	1,837	3,066	5,013	6,497	6,903	7,127	7,183
Technical/professional	5,945	6,633	7,776	9,127	11,092	13,400	14,814	16,984
Education	894	785	723	770	1,092	1,106	890	977
Business management	2,596	3,135	3,943	5,274	6,002	7,973	2,018	2,261
Health sciences	1,018	1,087	1,312	1,310	1,577	1,710	9,100	10,592
Other technical/professional	1,437	1,626	1,798	1,773	2,421	2,611	2,806	3,154
American Indian/Alaskan Native								
Total degrees	**3,319**	**3,404**	**3,593**	**4,246**	**3,971**	**3,954**	**4,513**	**5,176**
Humanities and social/behavioral sciences	1,143	1,144	1,211	1,260	1,246	1,237	1,501	1,828
Humanities	504	470	541	612	596	611	737	903
Social and behavioral sciences	639	674	670	648	650	626	764	925
Natural sciences	250	252	220	318	274	259	297	297
Life sciences	157	148	137	161	147	146	180	185
Physical sciences	67	63	65	98	74	62	70	66
Mathematics	26	41	18	59	53	51	47	46
Computer sciences and engineering	149	173	216	452	405	368	317	356
Computer and information sciences	15	11	21	139	116	88	82	81
Engineering[2]	134	162	195	313	289	280	235	275
Technical/professional	1,777	1,835	1,946	2,216	2,046	2,090	2,398	2,695
Education	707	645	569	483	452	533	618	654
Business management	433	505	636	921	783	797	285	332
Health sciences	154	206	209	273	274	239	868	949
Other technical/professional	483	479	532	539	537	521	627	760

[1] In 1991-92 there was a reclassification of Instructional Programs. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the IPEDS "Completions" survey: "Business management" includes Business and management, Business (administrative support), Marketing and distribution, and Consumer, personal, and miscellaneous services.

[2] Engineering technologies cannot be derived from the "Engineering" category by race/ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 255 and 256, (based on IPEDS/HEGIS surveys of degrees conferred).

Table 40-1 Percentage of students in grades 1–12 who are black or Hispanic, by control of school and metropolitan status: 1970–93

	Public schools				
Year	Total	Central cities	Other metropolitan	Non-metropolitan	Private schools
1970	—	—	—	—	—
1971	—	—	—	—	—
1972	20.5	42.0	10.6	14.9	9.9
1973	20.3	41.8	10.1	14.6	10.6
1974	21.5	44.0	10.9	16.2	11.5
1975	22.0	44.5	12.0	15.9	10.9
1976	22.4	44.9	13.4	15.3	11.0
1977	21.9	47.0	12.6	15.5	13.1
1978	22.3	47.4	13.3	15.3	11.1
1979	22.7	49.5	14.1	14.4	13.0
1980	—	—	—	—	—
1981	24.6	51.4	15.6	16.0	13.9
1982	24.7	51.0	15.5	16.1	13.9
1983	25.2	51.5	16.6	15.6	13.7
1984	—	—	—	—	12.1
1985	26.8	56.7	18.1	16.8	11.5
1986	27.1	52.4	16.5	18.3	13.8
1987	27.1	51.7	17.5	16.7	14.3
1988	27.4	51.1	18.6	16.9	14.8
1989	27.8	51.8	20.0	15.3	14.1
1990	27.8	52.1	19.5	16.4	14.3
1991	28.1	52.9	19.6	15.9	14.3
1992	28.3	52.6	20.4	15.5	14.9
1993	28.4	53.8	20.2	16.0	16.7

— Not available.

NOTE: Control of school was not available in 1980. Residence of students was not available in 1984. The definition of metropolitan areas in the United States was changed in 1985. Because a small number of students (less than 1 percent) are both black and Hispanic, the percentages in this table are slightly smaller than the sum of the "percent black" and "percent Hispanic" columns shown in the text table of *Indicator 40*.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment ...," various years; October Current Population Surveys.

Table 40-2 Enrollment in public elementary and secondary schools, by race/ethnicity: 1976, 1984, 1986, 1988, 1990, and 1992

Race/ethnicity	1976	1984	1986	1988	1990	1992*	1976–90
				(In thousands)			Percentage change
Total	**43,714**	**39,452**	**41,156**	**40,484**	**40,848**	**42,612**	**-2.5**
White	33,229	28,106	28,957	28,628	27,727	28,428	-14.4
Total minority	10,485	11,346	12,200	11,857	13,121	14,185	35.3
Black	6,774	6,389	6,622	6,158	6,616	7,040	3.9
Hispanic	2,807	3,599	4,064	4,071	4,716	5,222	86.0
Asian/Pacific Islander	535	994	1,158	1,267	1,380	1,480	176.6
American Indian/Alaskan Native	368	364	356	361	409	443	20.4
				(Percent)			Change in percentage points
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**—**
White	76.0	71.2	70.4	70.7	67.8	66.7	-9.3
Total minority	24.0	28.8	29.6	29.3	32.1	33.3	9.3
Black	15.5	16.2	16.1	15.2	16.2	16.5	1.0
Hispanic	6.4	9.1	9.9	10.1	11.5	12.3	5.8
Asian/Pacific Islander	1.2	2.5	2.8	3.1	3.4	3.5	2.2
American Indian/Alaskan Native	0.8	0.9	0.9	0.9	1.0	1.0	0.2

— Not applicable.

*Data are from the Common Core of Data survey.

NOTE: Because data shown in this table are taken from surveys other than the Current Population Surveys, and because survey procedures and definitions differ, they are not comparable to the data in the other tables of this indicator. Enrollment includes kindergarten and a small number of prekindergarten students.

SOURCE: U.S. Department of Education, Office for Civil Rights, Elementary and Secondary School Civil Rights Survey, 1976, 1984, 1986, 1988, and 1990; and National Center for Education Statistics, Common Core of Data survey, 1992.

Table 40-3 Percentage distribution of enrollment in public elementary and secondary schools, by race/ethnicity and state: Fall 1992

State	Total	White[1]	Black[1]	Hispanic[1]	Asian/ Pacific Islander	American Indian/ Alaskan Native
United States	100.0	[2]66.7	[2]16.5	[2]12.3	[2]3.5	[2]1.0
Alabama	100.0	62.7	35.6	0.3	0.6	0.8
Alaska	100.0	66.1	4.7	2.3	4.0	23.0
Arizona	100.0	60.4	4.1	26.9	1.6	7.0
Arkansas	100.0	74.4	23.9	0.7	0.7	0.3
California	100.0	43.4	8.6	36.1	11.0	0.8
Colorado	100.0	74.5	5.4	16.8	2.4	1.0
Delaware	100.0	66.8	28.1	3.2	1.7	0.2
District of Columbia	100.0	4.0	89.1	5.6	1.3	(3)
Georgia	—	—	—	—	—	—
Hawaii	100.0	23.8	2.7	5.2	68.0	0.3
Idaho	—	—	—	—	—	—
Illinois	100.0	65.1	21.2	10.7	2.8	0.1
Indiana	100.0	86.2	11.0	1.9	0.7	0.1
Iowa	100.0	93.8	2.9	1.5	1.4	0.4
Kansas	100.0	84.1	8.2	5.0	1.8	0.9
Kentucky	100.0	89.7	9.5	0.2	0.5	(3)
Louisiana	100.0	52.2	45.1	1.0	1.2	0.4
Maine	—	—	—	—	—	—
Maryland	100.0	59.8	33.6	2.7	3.7	0.3
Massachusetts	100.0	79.8	8.0	8.5	3.6	0.2
Michigan	100.0	77.8	17.4	2.4	1.3	1.0
Minnesota	100.0	89.8	3.7	1.5	3.2	1.8
Mississippi	100.0	48.3	50.6	0.2	0.5	0.4
Missouri	100.0	82.6	15.5	0.8	0.9	0.2
Montana	100.0	88.0	0.5	1.4	0.7	9.4
Nebraska	100.0	88.9	5.5	3.2	1.1	1.2
Nevada	100.0	72.0	9.1	13.1	3.9	1.9
New Hampshire	100.0	97.0	0.8	1.0	1.0	0.2
New Jersey	100.0	63.7	18.7	12.6	4.9	0.1
New Mexico	100.0	40.9	2.3	45.8	0.9	10.2
New York	100.0	58.9	20.0	16.1	4.6	0.3
North Carolina	100.0	66.1	30.2	1.1	1.0	1.6
North Dakota	100.0	90.8	0.7	0.7	0.7	7.1
Ohio	100.0	83.0	14.6	1.3	1.0	0.1
Oklahoma	100.0	72.6	10.2	3.1	1.2	13.0
Oregon	100.0	87.5	2.4	5.3	3.0	1.8
Pennsylvania	100.0	81.7	13.5	3.1	1.7	0.1
Rhode Island	100.0	82.0	6.6	8.0	3.1	0.4
South Carolina	100.0	57.3	41.4	0.5	0.6	0.2
South Dakota	100.0	86.3	0.7	0.5	0.6	0.2
Tennessee	100.0	75.8	22.9	0.4	0.8	0.1
Texas	100.0	48.4	14.3	34.9	2.2	0.2
Utah	100.0	91.7	0.6	4.3	2.0	1.4
Vermont	100.0	97.7	0.6	0.3	0.6	0.8
Virginia	100.0	68.5	25.5	2.5	3.3	0.2
Washington	100.0	80.7	4.4	6.4	6.0	2.5
West Virginia	100.0	95.4	4.0	0.2	0.4	0.1
Wisconsin	100.0	84.8	8.9	2.8	2.2	1.3
Wyoming	100.0	89.6	0.9	6.1	0.7	2.6

— Not available.

[1] Excludes persons of Hispanic origin.

[2] Includes estimate for nonresponding states.

[3] Too few responses for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 45.

Table 41-1 Percentage of students in schools offering various programs and services, by control of school, grade, and urbanicity: School year 1993–94

Grade and urbanicity	Bilingual Education	English as a second language	Remedial reading	Remedial math	Programs for the handicapped	Programs for the gifted and talented	Diagnostic and prescriptive services	Extended day	Medical health care services
Public									
Kindergarten	24.4	52.5	86.8	59.1	90.7	74.1	83.6	42.0	57.4
Central city	32.8	56.4	83.4	56.4	90.4	70.9	81.3	50.1	55.3
Urban fringe/large town	21.1	65.6	84.4	57.6	87.3	76.1	85.7	46.8	58.4
Rural/small town	18.8	37.3	92.2	63.0	93.9	73.5	84.1	29.8	58.7
4th grade	23.2	51.9	86.4	61.0	91.5	77.9	82.7	40.8	56.9
Central city	32.3	57.0	83.4	56.7	91.9	74.2	82.5	49.2	57.0
Urban fringe/large town	21.3	64.8	84.0	57.2	87.9	78.4	84.6	47.4	56.7
Rural/small town	16.4	36.3	91.3	68.3	94.2	81.0	81.2	27.4	56.8
8th grade	20.4	54.9	75.3	61.8	91.5	79.9	82.0	8.3	62.0
Central city	31.0	63.5	74.7	59.2	90.7	75.8	81.9	8.9	65.0
Urban fringe/large town	20.5	65.7	71.6	57.3	92.3	83.2	82.7	10.8	59.1
Rural/small town	12.0	39.0	78.8	67.6	91.5	80.4	81.4	5.9	62.2
12th grade	20.8	53.4	72.2	68.7	92.8	71.9	83.3	6.7	61.4
Central city	27.3	56.5	73.3	67.4	93.3	70.9	80.3	7.5	60.8
Urban fringe/large town	24.1	69.8	73.9	71.3	91.9	77.8	87.7	6.5	59.4
Rural/small town	12.8	37.0	70.0	67.4	93.2	67.6	81.9	6.3	63.5
Private									
Kindergarten	5.9	14.8	62.8	47.4	23.5	26.8	49.6	68.4	33.9
Central city	6.2	17.6	66.0	50.3	25.3	29.7	47.9	74.6	33.3
Urban fringe/large town	6.6	14.2	61.1	46.3	21.5	25.4	54.6	69.8	35.1
Rural/small town	3.5	5.6	56.8	39.9	21.8	22.5	45.7	47.6	33.5
4th grade	4.1	14.2	64.6	48.9	25.1	26.0	53.2	62.2	36.1
Central city	4.2	18.5	70.4	55.2	27.6	29.3	54.0	70.2	37.7
Urban fringe/large town	4.5	12.2	63.2	46.5	22.8	24.0	57.1	63.1	35.9
Rural/small town	2.7	5.3	52.7	36.3	22.3	21.7	45.5	40.1	31.7
8th grade	3.8	15.1	61.3	48.2	25.6	26.8	52.0	55.2	39.2
Central city	3.1	18.7	64.5	53.6	28.5	28.4	53.1	61.1	39.8
Urban fringe/large town	4.7	13.7	65.1	48.4	23.2	26.9	55.5	58.2	40.1
Rural/small town	3.6	7.9	49.3	34.1	23.0	22.2	45.4	35.2	35.1
12th grade	2.2	16.0	45.9	37.8	23.3	44.2	44.2	18.5	45.4
Central city	1.1	12.2	45.9	39.0	21.9	46.4	45.5	17.8	42.0
Urban fringe/large town	3.5	17.7	49.3	39.5	25.9	46.6	45.0	16.7	47.3
Rural/small town	3.1	25.0	39.0	32.6	26.0	33.6	41.9	22.5	52.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Table 41-2 Percentage of students in schools offering various programs and services, by control of school, grade, and percentage of students receiving free or reduced-price lunch: School year 1993–94

Grade and percentage of students receiving free or reduced lunch	Bilingual education	English as a second language	Remedial reading	Remedial math	Programs for the handi-capped	Programs for the gifted and talented	Diagnostic and pre-scriptive services	Extended day	Medical health care services
					Public				
Kindergarten									
0-5	11.5	59.9	84.3	54.5	93.7	79.8	90.3	61.8	59.4
6-20	7.2	51.2	78.3	46.6	86.7	78.4	85.7	43.0	61.1
21-40	18.8	46.1	88.7	59.5	92.1	78.4	84.2	41.5	50.7
41-100	38.6	55.4	90.0	64.9	91.5	69.6	81.4	39.6	58.3
4th grade									
0-5	14.0	59.6	83.5	54.6	91.6	83.3	87.6	58.5	57.8
6-20	7.5	51.1	79.9	49.0	89.3	82.2	83.7	42.6	62.1
21-40	18.6	47.7	87.1	61.7	92.3	79.9	83.9	39.3	49.9
41-100	36.6	53.8	89.8	68.0	92.4	74.8	80.9	38.7	57.4
8th grade									
0-5	6.8	66.6	74.2	61.1	91.2	76.6	85.5	13.5	65.9
6-20	12.4	53.6	72.0	59.5	93.6	83.4	81.1	7.9	61.4
21-40	19.5	49.9	75.9	63.3	92.3	81.4	81.7	5.4	58.0
41-100	30.5	56.3	76.2	63.1	89.4	76.8	79.6	9.8	64.0
12th grade									
0-5	10.6	57.1	72.6	63.7	96.3	75.4	86.5	4.7	61.8
6-20	19.9	57.0	72.6	71.1	93.8	72.9	84.2	6.7	61.6
21-40	26.9	51.2	72.8	72.6	94.4	73.9	85.7	6.0	62.7
41-100	28.4	47.7	74.4	66.8	92.5	72.4	80.8	11.1	62.3
					Private				
Kindergarten									
0-5	3.4	18.6	73.3	57.9	33.7	31.1	64.5	69.9	42.4
6-20	2.0	7.6	75.6	55.6	34.9	30.6	60.4	58.9	48.6
21-40	3.4	7.7	87.7	66.7	29.7	43.9	69.1	56.2	48.7
41-100	22.8	37.5	85.1	65.2	21.0	19.3	45.1	67.0	29.0
4th grade									
0-5	2.3	19.4	74.6	59.9	35.8	33.3	69.9	66.3	39.6
6-20	2.1	7.8	74.5	54.3	34.2	30.6	60.0	54.3	47.6
21-40	2.1	7.8	84.7	61.0	31.3	36.2	66.7	51.5	49.9
41-100	12.2	27.7	81.0	61.4	21.3	16.5	45.9	54.0	33.4
8th grade									
0-5	1.9	18.7	74.5	63.9	35.0	30.7	69.2	60.2	44.4
6-20	1.6	8.4	69.8	57.0	35.2	30.2	57.9	47.2	43.5
21-40	0.1	6.9	82.6	59.5	28.4	30.4	61.9	47.4	54.1
41-100	12.1	28.7	78.9	55.9	23.5	14.5	42.4	55.7	31.3
12th grade									
0-5	0.0	14.8	51.4	43.8	30.8	38.0	53.0	14.7	39.2
6-20	7.4	16.0	65.0	48.1	44.7	55.5	65.1	5.4	68.1
21-40	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
41-100	25.1	35.7	77.8	45.1	31.1	33.7	28.1	27.3	48.0

* Too few observations for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Table 41-3 Percentage of students in public schools offering various programs and services, by grade, urbanicity, and percentage of students receiving free or reduced-price lunch: School year 1993–94

Grade, urbanicity, and percentage of students receiving free or reduced lunch	Bilingual education	English as a second language	Remedial reading	Remedial math	Programs for the handi-capped	Programs for the gifted and talented	Diagnostic and pre-scriptive services	Extended day	Medical health care services
Kindergarten									
Central city									
0-5	3.3	52.4	84.5	54.0	92.0	70.0	95.3	51.1	59.9
6-20	6.2	39.0	67.7	29.8	87.0	79.7	83.5	48.7	59.7
21-40	24.3	58.8	76.8	51.0	94.1	82.1	80.6	61.4	45.2
41-100	45.2	60.5	89.2	64.3	89.0	65.3	80.7	47.2	57.2
Urban fringe/large town									
0-5	16.8	69.2	85.6	51.2	94.3	83.9	88.6	68.1	57.4
6-20	5.2	67.3	77.2	51.6	85.2	76.0	88.2	47.4	61.9
21-40	19.8	59.0	91.4	60.6	84.3	84.1	82.1	42.6	51.0
41-100	42.6	66.9	86.0	65.7	90.8	69.3	84.3	44.0	59.4
Rural/small town									
0-5	6.6	44.3	81.0	63.2	93.9	79.5	89.4	56.9	64.1
6-20	10.8	37.3	88.5	52.9	87.2	80.7	83.7	31.8	61.1
21-40	15.0	30.7	94.1	63.9	95.7	72.6	87.6	29.0	53.9
41-100	27.4	41.6	93.4	65.3	95.2	75.7	80.5	26.7	59.0
4th grade									
Central city									
0-5	4.2	48.7	84.6	49.8	91.3	79.1	87.1	47.1	50.5
6-20	10.1	42.3	72.7	33.7	90.7	81.4	84.7	50.6	60.8
21-40	27.1	60.8	74.8	50.8	93.9	81.8	83.0	57.9	48.0
41-100	43.8	60.9	89.5	65.8	91.5	69.6	82.4	46.2	59.9
Urban fringe/large town									
0-5	16.1	68.6	83.4	52.1	91.3	83.8	88.2	66.9	59.0
6-20	5.8	66.0	78.4	53.5	87.0	80.7	86.8	47.2	59.7
21-40	20.0	60.5	89.3	58.5	84.2	86.2	81.7	40.9	51.6
41-100	42.7	67.4	86.1	65.9	91.3	70.3	83.5	48.2	55.3
Rural/small town									
0-5	18.0	45.1	82.5	66.4	92.5	86.3	86.5	46.4	62.0
6-20	7.7	37.2	87.8	55.0	91.2	84.9	78.5	29.5	66.7
21-40	12.9	33.1	92.9	69.8	95.8	73.4	85.7	27.7	50.0
41-100	24.0	37.0	92.2	72.0	94.4	84.1	77.5	23.6	55.5

Table 41-3 Percentage of students in public schools offering various programs and services, by grade, urbanicity, and percentage of students receiving free or reduced-price lunch: School year 1993–94—Continued

Grade, urbanicity, and percentage of students receiving free or reduced lunch	Bilingual education	English as a second language	Remedial reading	Remedial math	Programs for the handi-capped	Programs for the gifted and talented	Diagnostic and pre-scriptive services	Extended day	Medical health care services
8th grade									
Central city									
0-5	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
6-20	16.0	46.2	70.2	58.7	97.7	83.1	85.9	5.4	74.0
21-40	19.8	60.5	76.5	55.6	91.9	80.7	83.1	6.9	52.9
41-100	41.6	70.3	74.7	62.7	88.2	71.1	79.2	10.5	64.9
Urban fringe/large town									
0-5	3.9	71.9	69.6	52.6	88.3	75.8	82.4	16.0	63.0
6-20	16.7	69.7	73.3	59.4	92.7	86.3	82.8	9.4	50.3
21-40	30.1	59.8	72.2	63.3	94.9	80.7	87.7	5.4	60.4
41-100	26.0	61.9	68.2	52.9	91.5	86.8	80.3	14.4	68.3
Rural/small town									
0-5	7.1	54.3	90.7	83.6	97.1	75.0	89.9	5.3	66.5
6-20	6.1	40.8	71.5	60.0	92.3	80.6	84.5	7.6	66.2
21-40	13.6	39.2	77.6	67.1	91.2	82.1	77.7	4.6	59.3
41-100	17.8	32.6	83.6	70.4	89.8	78.0	79.6	5.7	59.7
12th grade									
Central city									
0-5	3.0	39.8	74.5	57.0	94.8	69.9	84.5	4.3	58.3
6-20	22.0	57.8	74.4	73.9	96.1	75.0	80.2	7.5	59.2
21-40	35.5	60.5	76.5	73.8	96.4	71.8	83.4	4.9	60.5
41-100	42.9	64.8	77.0	68.6	95.0	74.1	83.4	13.6	68.4
Urban fringe/large town									
0-5	15.5	71.1	74.9	69.1	96.1	81.1	89.1	5.5	59.0
6-20	24.7	71.7	72.2	71.0	90.6	76.6	87.4	7.6	60.7
21-40	37.4	71.2	76.0	77.6	97.6	80.9	94.0	5.5	63.4
41-100	26.4	55.9	77.2	65.9	84.0	69.7	82.9	6.4	60.6
Rural/small town									
0-5	6.7	42.7	66.9	58.1	97.7	68.2	83.1	3.3	69.7
6-20	13.8	42.7	71.5	69.2	95.2	68.0	84.3	5.2	64.1
21-40	14.0	31.9	68.0	68.7	91.0	71.1	82.2	7.1	63.8
41-100	15.5	29.5	71.1	65.4	92.6	71.6	77.9	10.0	57.1

* Too few observations for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Table 41-4 Percentage of students enrolled in public schools offering various programs and services, by state: School year 1993–94

State	Bilingual education	English as a second language	Remedial reading	Remedial math	Programs for the handicapped	Programs for the gifted and talented	Diagnostic and prescriptive services	Extended day	Medical health care services
Total	**23.2**	**51.9**	**86.4**	**61.0**	**91.5**	**77.9**	**82.7**	**40.8**	**56.9**
Alabama	1.7	14.2	71.0	59.7	93.2	71.3	70.2	21.8	34.0
Alaska	65.3	70.2	78.5	70.9	93.9	85.9	90.8	22.0	68.2
Arizona	38.5	82.0	82.0	58.6	93.5	86.4	88.0	42.4	75.2
Arkansas	6.7	24.4	85.7	77.4	97.0	96.9	72.7	12.5	75.2
California	59.0	90.0	74.5	56.9	87.0	74.7	85.5	28.5	57.6
Colorado	23.8	60.9	79.7	51.6	91.3	70.3	89.7	22.9	52.5
Connecticut	12.6	64.3	92.8	78.2	91.8	56.5	91.3	26.8	79.6
Delaware	12.9	52.4	86.3	69.0	88.6	77.6	94.1	19.4	80.5
District of Columbia	18.9	42.9	87.8	68.3	77.5	84.5	67.4	43.7	56.3
Florida	28.3	66.6	62.2	52.0	94.1	75.9	79.7	43.4	47.0
Georgia	9.4	36.6	84.0	82.1	95.8	90.7	76.0	29.9	27.6
Hawaii	44.7	95.1	77.5	54.1	98.3	93.0	82.2	66.0	47.7
Idaho	31.8	61.6	89.6	80.6	92.5	75.0	89.9	10.4	48.0
Illinois	24.0	42.7	84.6	61.3	91.8	78.2	86.8	18.4	66.1
Indiana	7.1	23.0	73.9	44.3	94.7	69.8	86.4	33.0	72.4
Iowa	5.0	29.0	77.5	45.1	93.1	96.7	85.5	12.7	74.2
Kansas	14.3	27.7	73.5	55.2	90.6	86.7	83.9	20.2	71.3
Kentucky	3.7	14.9	73.1	54.1	96.1	75.2	70.7	48.6	49.6
Louisiana	8.1	24.8	68.4	55.0	86.4	76.4	71.2	20.1	65.0
Maine	5.3	32.8	80.4	64.7	93.4	62.7	83.5	15.4	72.7
Maryland	4.2	49.1	79.2	64.7	88.9	80.6	84.7	37.4	54.3
Massachusetts	28.3	62.5	84.2	59.9	89.7	31.6	92.5	24.6	76.5
Michigan	21.1	39.3	84.5	73.1	93.0	62.9	87.2	20.2	23.3
Minnesota	6.6	45.1	84.9	80.2	94.0	75.4	85.0	31.0	65.3
Mississippi	4.6	13.3	80.5	74.7	86.1	73.0	59.3	10.7	43.9
Missouri	2.9	34.2	74.8	43.3	95.2	63.5	83.7	29.8	69.5
Montana	11.4	12.0	83.8	80.7	96.8	69.2	84.2	14.2	55.9
Nebraska	9.9	28.3	81.2	59.1	92.5	67.9	91.3	9.7	80.0
Nevada	28.7	75.8	80.1	46.6	87.6	82.5	86.0	47.0	71.7
New Hampshire	4.7	44.1	86.2	62.0	95.7	40.1	92.5	17.8	81.8
New Jersey	23.1	72.3	93.0	94.2	85.9	76.0	91.6	28.7	82.8
New Mexico	65.6	74.7	80.4	55.1	95.2	87.9	86.2	22.4	79.0
New York	30.7	76.0	95.2	80.9	88.5	56.3	84.7	20.5	62.0
North Carolina	13.9	41.0	76.1	50.2	97.1	90.5	75.1	41.3	58.2
North Dakota	8.2	28.5	82.1	66.9	94.3	34.4	85.4	15.2	27.1
Ohio	9.3	27.8	81.1	49.7	96.7	71.1	78.3	18.6	62.2
Oklahoma	18.9	37.2	78.2	58.2	97.3	92.2	78.5	16.8	42.5
Oregon	25.9	65.3	88.1	80.0	88.6	91.8	89.0	25.2	55.7
Pennsylvania	7.4	47.0	81.5	58.8	94.1	93.1	80.9	11.9	74.7
Rhode Island	8.8	59.6	91.4	39.7	86.9	50.3	96.8	7.7	77.9
South Carolina	4.1	38.1	95.8	93.9	95.9	87.8	82.9	23.8	71.6
South Dakota	6.2	17.8	81.5	72.2	93.5	93.0	83.9	9.1	70.1
Tennessee	1.5	14.4	73.6	65.8	90.9	80.2	72.7	21.1	21.1
Texas	36.1	78.9	79.8	57.5	92.7	88.2	86.3	22.1	69.9
Utah	25.2	60.5	85.5	79.9	87.8	59.8	87.1	10.1	44.3
Vermont	5.6	33.2	88.7	70.7	85.6	28.4	92.5	14.9	74.0
Virginia	6.6	52.3	84.7	58.0	97.2	93.2	82.7	20.1	55.5
Washington	15.8	64.0	84.6	81.6	87.9	65.7	84.9	17.7	58.8
West Virginia	0.0	3.8	74.2	62.3	91.5	84.6	75.0	8.1	69.3
Wisconsin	11.0	31.7	83.8	59.4	94.1	82.6	95.1	19.3	67.6
Wyoming	10.6	29.2	85.9	63.4	94.5	51.1	93.0	17.7	77.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Note on programs and services offered in schools

The following are definitions of programs and services indicated by schools in the Schools and Staffing Survey, 1993–94.

Bilingual education: Native language is used to varying degrees in instruction of students with limited English proficiency.

English as a second language: Students with limited English proficiency are provided with intensive instruction in English.

Remedial reading: Organized compensatory, diagnostic, and remedial activities designed to correct and prevent difficulties in the development of reading skills.

Remedial mathematics: Organized compensatory, diagnostic, and remedial activities designed to correct and prevent difficulties in the development of mathematical skills.

Programs for the handicapped: Instruction for the mentally retarded, specific learning disabled, physically handicapped, and other handicapped.

Programs for the gifted and talented: Activities designed to permit gifted and talented students to further develop their abilities.

Diagnostic and prescriptive services: Services provided by trained professionals to diagnose learning problems of students and to plan and provide therapeutic or educational programs based upon such services.

Extended day: Before- or after-school day care programs.

Medical and health care services: Services provided by trained professionals (e.g., physician, physician assistant, nurse, or nurse practitioner) to diagnose and treat health problems of students.

Table 42-1 Number of children served in federally supported programs for the disabled, by type of disability: School years ending 1977–93

Type of disability	1977	1978	1979	1980	1981	1982	1983	1984	1985
	Number served (in thousands)[1]								
All disabilities	**3,692**	**3,751**	**3,889**	**4,005**	**4,142**	**4,198**	**4,255**	**4,298**	**4,315**
Specific learning disabilities	796	964	1,130	1,276	1,462	1,622	1,741	1,806	1,832
Speech or language impairments	1,302	1,223	1,214	1,186	1,168	1,135	1,131	1,128	1,126
Mental retardation	959	933	901	869	829	786	757	727	694
Serious emotional disturbance	283	288	300	329	346	339	352	361	372
Hearing impairments	87	85	85	80	79	75	73	72	69
Orthopedic impairments	87	87	70	66	58	58	57	56	56
Other health impairments	141	135	105	106	98	79	50	53	68
Visual impairments	38	35	32	31	31	29	28	29	28
Multiple disabilities	—	—	50	60	68	71	63	65	69
Deaf-blindness	—	—	2	2	3	2	2	2	2
Preschool disabled[2]	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

Type of disability	1986	1987	1988	1989	1990	1991	1992	1993
	Number served (in thousands)[1]							
All disabilities	**4,317**	**4,374**	**4,447**	**4,544**	**4,641**	**[4]4,762**	**[4]4,949**	**5,159**
Specific learning disabilities	1,862	1,914	1,928	1,987	2,050	[4]2,130	[4]2,234	2,364
Speech or language impairments	1,125	1,136	953	976	973	[4]985	[4]997	998
Mental retardation	660	643	582	564	548	[4]534	[4]538	532
Serious emotional disturbance	375	383	373	376	381	[4]390	[4]399	402
Hearing impairments	66	65	56	56	57	58	60	61
Orthopedic impairments	57	57	47	47	48	49	51	53
Other health impairments	57	52	45	43	52	55	58	66
Visual impairments	27	26	22	23	22	23	24	24
Multiple disabilities	86	97	77	85	86	96	[4]97	103
Deaf-blindness	2	2	1	2	2	1	1	1
Preschool disabled[2]	(3)	(3)	363	394	422	445	[4]484	536

— Not available.

[1] Includes students served under Chapter 1 of the Education Consolidation and Improvement Act (ECIA) and Part B of the Individuals with Disabilities Education Act (IDEA).

[2] Includes preschool children aged 3-5 and 0-5 served under Chapter 1 and Part B of the IDEA, respectively.

[3] Prior to 1987-88, these students were included in the counts by disabling condition. Beginning in 1987-88, states are no longer required to report disabled preschool students (0-5 years) by disabling condition.

[4] Revised from previously published figures.

NOTE: Counts are based on reports from the 50 states and District of Columbia only (i.e., figures from the U.S. territories are not included). Increases since 1987-88 are due in part to new legislation enacted in fall 1986, which mandates public school appropriate education services for all disabled children ages 3-5. Detail may not add to totals due to rounding.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years.

Table 42-2 Percentage distribution of children served in federally supported programs for the disabled, by type of disability: School years ending 1977–93

Type of disability	1977	1978	1979	1980	1981	1982	1983	1984	1985
All disabilities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100**
Specific learning disabilities	21.6	25.7	29.1	31.9	35.3	38.6	40.9	42.0	42.5
Speech or language impairments	35.3	32.6	31.2	29.6	28.2	27.0	26.6	26.2	26.1
Mental retardation	26.0	24.9	23.2	21.7	20.0	18.7	17.8	16.9	16.1
Serious emotional disturbance	7.7	7.7	7.7	8.2	8.4	8.1	8.3	8.4	8.6
Hearing impairments	2.4	2.3	2.2	2.0	1.9	1.8	1.7	1.7	1.6
Orthopedic impairments	2.4	2.3	1.8	1.6	1.4	1.4	1.3	1.3	1.3
Other health impairments	3.8	3.6	2.7	2.6	2.4	1.9	1.2	1.2	1.6
Visual impairments	1.0	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.6
Multiple disabilities	—	—	1.3	1.5	1.6	1.7	1.5	1.5	1.6
Deaf-blindness	—	—	(1)	(1)	0.1	(1)	(1)	(1)	(1)
Preschool disabled[2]	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

Type of disability	1986	1987	1988	1989	1990	1991	1992	1993
All disabilities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Specific learning disabilities	43.1	43.8	43.4	43.7	44.2	[4]44.7	[4]45.1	45.8
Speech or language impairments	26.1	26.0	21.4	21.5	21.0	[4]20.7	[4]20.1	19.3
Mental retardation	15.3	14.7	13.1	12.4	11.8	[4]11.2	[4]10.9	10.3
Serious emotional disturbance	8.7	8.8	8.4	8.3	8.2	[4]8.2	[4]8.1	7.8
Hearing impairments	1.5	1.5	1.3	1.2	1.2	1.2	1.2	1.2
Orthopedic impairments	1.3	1.3	1.1	1.0	1.0	1.0	1.0	1.0
Other health impairments	1.3	1.2	1.0	0.9	1.1	1.2	1.2	1.3
Visual impairments	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Multiple disabilities	2.0	2.2	1.7	1.9	1.9	2.0	2.0	2.0
Deaf-blindness	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Preschool disabled[2]	(3)	(3)	8.2	8.7	9.1	9.3	[4]9.8	10.4

— Not available

[1] Less than 0.05.

[2] Includes preschool children aged 3-5 and 0-5 served under Chapter 1 of ECIA and Part B of the IDEA, respectively.

[3] Prior to 1987-88, these students were included in the counts by type of disability. Beginning in 1987-88, states are no longer required to report preschool students (0-5 years) with disabilities by type of disability.

[4] Revised from previously published figures.

NOTE: Counts are based on reports from the 50 states and District of Columbia only (i.e., figures from the U.S. territories are not included). Increases since 1987-88 are due in part to new legislation enacted in fall 1986, which mandates public school appropriate education services for all disabled children ages 3-5. Detail may not add to totals due to rounding.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years.

Table 42-3 Children served in federally supported programs for students with disabilities, as a percentage of public K–12 enrollment,[1] by type of disability: School years ending 1977–93

Type of disability	1977	1978	1979	1980	1981	1982	1983	1984	1985
All disabilities	8.5	8.8	9.3	9.8	10.3	10.6	10.8	11.0	10.9
Specific learning disabilities	1.8	2.3	2.7	3.1	3.7	4.1	4.4	4.6	4.6
Speech or language impairments	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Mental retardation	2.2	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.8
Serious emotional disturbance	0.6	0.7	0.7	0.8	0.9	0.9	0.9	0.9	0.9
Hearing impairments	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Orthopedic impairments	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Other health impairments	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2
Visual impairments	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Multiple disabilities	—	—	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Deaf-blindness	—	—	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Preschool disabled[3]	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)

Type of disability	1986	1987	1988	1989	1990	1991[5]	1992[5]	1993
All disabilities	10.9	10.9	11.1	11.2	11.3	11.3	11.6	11.9
Specific learning disabilities	4.7	4.8	4.8	4.9	5.0	5.1	5.2	5.5
Speech or language impairments	2.8	2.8	2.4	2.4	2.4	2.3	2.3	2.3
Mental retardation	1.7	1.6	1.4	1.4	1.3	1.3	1.3	1.2
Serious emotional disturbance	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9
Hearing impairments	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Orthopedic impairments	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other health impairments	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Visual impairments	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Multiple disabilities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Deaf-blindness	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Preschool disabled[3]	(4)	(4)	0.9	1.0	1.0	1.1	1.1	1.2

— Not available.

[1] Based on the enrollment in public schools, kindergarten through 12th grade, including a relatively small number of prekindergarten students.

[2] Less than 0.05.

[3] Includes preschool children aged 3-5 and 0-5 served under Chapter 1 of ECIA and Part B of the IDEA, respectively.

[4] Prior to 1987-88, these students were included in the counts by disabling condition. Beginning in 1987-88, states are no longer required to report disabled preschool students (0-5 years) by disabling condition.

[5] Revised from previously published figures.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Act*, various years. U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 3.

Table 42-4 **Distribution of students in special education programs, by type of disability, sex, and race/ethnicity of student: School years ending 1986, 1988, and 1990**

Type of disability, sex, and race/ethnicity	1986	1988	1990
Total			
All disabilities	100.0	100.0	100.0
Specific learning disabilities	46.6	47.5	48.6
Speech or language impairments	27.5	27.5	26.5
Mental retardation*	14.1	14.3	13.6
Serious emotional disturbance	6.9	5.9	6.7
Male			
All disabilities	63.8	64.7	64.2
Specific learning disabilities	32.9	33.9	34.0
Speech or language impairments	17.4	17.4	16.8
Mental retardation*	8.2	8.7	8.1
Serious emotional disturbance	5.3	4.7	5.3
Female			
All disabilities	31.3	31.6	31.1
Specific learning disabilities	13.8	14.2	14.7
Speech or language impairments	10.1	10.3	9.5
Mental retardation*	5.9	5.9	5.5
Serious emotional disturbance	1.5	1.2	1.4
White			
All disabilities	66.0	66.7	65.1
Specific learning disabilities	33.1	34.3	34.0
Speech or language impairments	20.2	20.5	19.2
Mental retardation*	8.2	7.7	7.2
Serious emotional disturbance	4.4	4.2	4.7
Black			
All disabilities	18.8	17.5	18.4
Specific learning disabilities	7.8	7.3	8.1
Speech or language impairments	4.4	4.0	4.2
Mental retardation*	4.7	4.9	4.6
Serious emotional disturbance	1.8	1.3	1.5
Hispanic			
All disabilities	8.1	8.8	9.6
Specific learning disabilities	4.7	4.8	5.4
Speech or language impairments	2.1	2.1	2.3
Mental retardation*	0.8	1.5	1.5
Serious emotional disturbance	0.5	0.3	0.4

* Includes both those students classified as Educably Mentally Retarded (EMR) and Trainably Mentally Retarded (TMR).

NOTE: The National Summaries from the Elementary and Secondary School Civil Rights Survey includes data for the four disability categories shown in this table and does not include data for the other disability categories shown on other tables in this indicator. Therefore, the "All disabilties" category shown here includes the following four disability categories: specific learning disabilties, speech or language impairments, mental retardation, and serious emotional disturbance.

SOURCE: U.S. Department of Education, Office for Civil Rights, *National Summaries from the Elementary and Secondary School Civil Rights Survey*, various years.

Table 42-5 Percentage of public school children with disabilities served in various school environments, by type of disability and classroom environment: School years ending 1986–92

Type of disability	1986	1987	1988	1989	1990	1991	1992
	Regular class/resource room combined in regular school						
All disabilities	**69.0**	**69.2**	**69.0**	**69.6**	**69.2**	**69.3**	**71.2**
Specific learning disabilities	77.8	76.8	76.7	77.5	76.8	76.2	78.8
Speech or language impairments	94.7	93.9	94.6	94.6	94.6	92.8	94.6
Mental retardation	28.8	29.8	29.2	28.0	26.5	30.4	30.5
Serious emotional disturbance	44.1	46.0	45.5	44.2	43.5	45.9	43.6
Hearing impairments	43.8	46.9	45.4	48.2	45.3	46.6	47.6
Orthopedic impairments	48.0	47.5	45.7	47.8	48.6	51.7	53.4
Other health impairments	47.6	59.0	51.5	50.3	53.4	57.8	62.9
Visual impairments	62.6	62.3	63.1	65.0	62.8	65.3	60.8
Deaf-blindness	20.6	24.3	20.1	21.4	20.5	23.8	24.3
Multiple disabilities	26.0	26.1	15.2	17.0	24.6	16.9	12.1
	Separate class in regular school						
All disabilities	**24.4**	**24.8**	**24.7**	**24.2**	**24.8**	**25.1**	**23.5**
Specific learning disabilities	20.8	21.2	21.8	21.0	21.7	22.4	20.1
Speech or language impairments	3.7	4.1	3.8	3.8	3.8	5.6	3.9
Mental retardation	57.3	58.4	58.0	58.3	61.5	58.3	59.2
Serious emotional disturbance	36.1	36.8	34.5	35.8	37.1	35.8	36.9
Hearing impairments	32.5	32.9	35.1	33.4	31.6	32.8	31.3
Orthopedic impairments	31.0	33.4	32.0	33.7	35.0	33.1	34.4
Other health impairments	24.8	19.9	18.8	19.6	24.5	26.3	21.5
Visual impairments	19.2	21.9	21.0	20.6	21.3	19.9	19.6
Deaf-blindness	44.5	48.2	46.6	46.8	44.1	42.8	47.1
Multiple disabilities	22.2	37.5	36.9	29.6	30.4	32.0	36.5

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years.

Table 42-6 Ratio of the number of students with disabilities to the number of special education teachers who serve them, by type of disability: Selected school years ending 1977–92

Type of disability	1977	1978	1979	1980	1981	1982	1983	1990	1991	1992
All disabilities	**21:1**	**19:1**	**19:1**	**18:1**	**18:1**	**18:1**	**18:1**	**16:1**	**16:1**	**16:1**
Specific learning disabilities	18:1	18:1	18:1	17:1	17:1	19:1	21:1	23:1	22:1	23:1
Speech or language impairments	71:1	62:1	64:1	49:1	48:1	56:1	58:1	25:1	25:1	23:1
Mental retardation	14:1	12:1	13:1	13:1	12:1	12:1	13:1	13:1	12:1	12:1
Serious emotional disturbance	13:1	14:1	13:1	12:1	13:1	14:1	13:1	14:1	13:1	14:1
Hearing impairments	10:1	10:1	9:1	9:1	10:1	9:1	9:1	9:1	9:1	9:1
Orthopedic impairments	16:1	18:1	12:1	14:1	13:1	12:1	13:1	15:1	15:1	14:1
Other health impairments	28:1	26:1	21:1	21:1	31:1	22:1	16:1	19:1	19:1	27:1
Visual impairments	11:1	10:1	8:1	9:1	9:1	10:1	9:1	8:1	8:1	8:1
Multiple disabilities	—	—	—	15:1	13:1	13:1	12:1	11:1	13:1	13:1
Deaf-blindness	—	—	—	3:1	8:1	5:1	2:1	4:1	4:1	7:1

— Not available.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, various years.

Table 43-1 Percentage of high school seniors participating in extracurricular activities, by activity and selected school characteristics: 1992

School characteristic	Extracurricular activity									
	Any activity[1]	Varsity sports	Intramural sports	School music group	School play or musical	Yearbook or newspaper	Academic clubs	Student government	School service clubs	School vocational club
Total	**82.0**	**35.8**	**29.2**	**19.8**	**15.4**	**18.8**	**25.1**	**15.4**	**13.9**	**17.7**
Control of school										
Public	82.0	35.0	28.4	19.8	15.0	16.9	25.1	15.0	13.6	19.4
Catholic	88.3	40.5	38.6	12.0	14.2	28.0	26.4	14.5	17.3	2.4
Other private	95.8	50.9	35.6	31.6	26.5	46.9	24.4	27.8	15.3	2.9
Poverty level[2]										
0–5 percent	84.0	38.2	31.7	20.0	15.9	21.1	25.7	15.8	14.9	10.4
6–20 percent	83.8	36.9	28.8	20.1	14.6	16.4	26.4	16.6	14.6	19.2
21–40 percent	83.1	35.0	27.9	20.2	16.4	18.6	25.4	14.4	13.7	22.3
41 percent or higher	80.6	31.4	26.8	20.5	13.2	19.1	23.3	15.1	12.9	25.2
Percent minority students										
Less than 20%	84.4	37.5	29.5	21.7	15.9	19.2	25.8	15.6	13.2	18.6
20% or more	81.4	34.0	28.6	18.0	14.5	17.8	24.8	15.1	15.7	18.1
Urbanicity										
Urban	82.1	33.6	30.0	18.2	15.4	21.1	24.8	15.4	17.0	12.1
Suburban	81.2	36.3	29.2	18.4	14.7	18.0	24.8	15.9	12.8	13.7
Rural	85.9	37.3	28.8	23.1	16.5	17.9	26.0	14.9	12.5	28.0
Geographic region										
Northeast	83.4	39.9	30.2	20.5	16.7	28.2	23.0	15.3	13.1	8.1
Midwest	84.1	37.7	29.3	23.7	17.8	18.2	25.4	14.9	10.5	18.4
South	84.0	34.3	28.6	17.2	13.8	15.0	28.2	15.3	17.4	27.2
West	78.8	32.3	29.3	18.3	13.9	16.6	21.6	16.7	13.2	10.0

[1] Any activity is a measure of the percentage of students who reported that they participated in at least one activity during the school year.

[2] Students receiving free or reduced-price lunches.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Student Survey, 1992.

Table 43-2 Percentage of high school seniors participating in extracurricular activities, by activity and selected student characteristics: 1992

Characteristic	Extracurricular activity									
	Any activity[1]	Varsity sports	Intramural sports	School music group	School play or musical	Yearbook or newspaper	Academic clubs	Student government	School service clubs	School vocational club
Total	**82.8**	**35.8**	**29.2**	**19.8**	**15.4**	**18.8**	**25.1**	**15.4**	**13.9**	**17.7**
Family income										
Less than $10,000	77.3	32.4	25.6	18.8	12.6	14.0	20.2	12.2	10.7	26.6
$10,000-19,999	78.0	30.5	27.5	18.1	12.8	15.7	20.7	14.0	9.8	21.5
$20,000-34,999	82.5	31.9	26.2	20.8	17.1	16.7	26.6	12.5	13.4	22.5
$35,000-49,999	85.3	36.5	29.4	21.4	15.5	18.1	26.8	16.9	13.7	17.1
$50,000-74,999	86.0	40.5	31.3	20.3	16.1	21.1	25.4	17.1	15.4	14.0
More than $75,000	89.5	45.4	33.1	21.7	17.9	25.6	29.7	20.5	19.2	9.4
Parent's highest education level										
Less than high school graduate	74.1	26.2	21.1	16.3	9.6	13.5	19.5	11.2	6.9	22.6
High school graduate	79.5	31.5	27.1	18.9	13.9	15.7	19.6	11.6	9.0	22.1
Some college	82.7	35.1	29.0	19.9	15.0	16.8	24.5	15.5	13.5	20.5
College graduate	89.0	43.2	32.1	22.9	19.2	25.0	30.8	19.5	19.1	9.9
Achievement quartile[2]										
First (low)	75.3	35.2	32.4	17.9	11.8	12.0	18.1	10.8	10.2	25.0
Second	79.5	34.6	30.6	17.7	11.9	14.5	20.1	12.0	10.7	22.3
Third	85.7	35.6	30.8	20.7	15.2	19.4	26.3	16.6	13.7	17.9
Fourth (high)	91.7	40.4	27.0	23.2	22.0	27.9	37.1	20.2	20.2	11.4

[1] Any activity is a measure of the percentage of students who reported that they had participated in at least one activity during the school year.

[2] The achievement quartile was measured on the NELS:88 base year test. This comparison is on participation in extracurricular activities in the 12th grade as it relates to achievement in the 8th grade.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Student and Parent Surveys.

Table 43-3 Percentage of eighth-graders participating in extracurricular activities, by activity and selected characteristics: 1988

Characteristic	Extracurricular activity							
	Any activity[1]	Varsity sports	Intramural sports	School music group	School play or musical	Yearbook or news-paper	Aca-demic clubs	Hobby clubs
Total	**84.3**	**47.9**	**42.4**	**40.1**	**8.8**	**21.8**	**25.0**	**15.5**
Sex								
Male	84.1	53.8	46.9	31.2	6.8	19.8	24.8	17.1
Female	84.5	42.1	38.2	48.7	10.7	23.7	25.3	13.9
Race/ethnicity								
White	85.0	48.4	42.2	36.9	7.7	20.7	22.5	14.1
Black	85.7	48.3	45.0	31.4	12.0	28.0	36.2	22.4
Hispanic	78.0	44.4	39.5	42.7	11.4	20.7	27.1	15.6
Asian/Pacific Islander	85.6	43.1	47.3	41.3	11.0	25.1	32.1	16.7
American Indian/ Alaskan Native	76.8	46.6	44.2	32.0	9.7	21.5	26.7	20.6
SES quartile[2]								
Lowest	77.6	41.5	37.7	34.0	7.9	20.9	25.4	16.1
Middle	84.5	48.2	42.4	20.5	8.3	21.2	24.3	15.4
Highest	90.1	53.1	47.0	44.2	10.5	23.7	26.0	15.1

[1] Any activity is a measure of the percentage of students who reported that they had participated in at least one of the listed activities during the school year. This category includes only those activities shown in this table and cannot be compared to the "any activity" category in tables 43-1 or 43-2.

[2] SES quartiles provide a relative measure of the socioeconomic status of families. The middle two quartiles were collapsed, creating a three-level SES scale with the values "lowest" (lowest quartile), "middle" (the two middle quartiles), and highest (highest quartile). See Glossary for further explanation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year, Student Survey, 1988.

Table 43-4 Percentage of high school sophomores participating in extracurricular activities, by activity and selected characteristics: 1990

	Extracurricular activity							
Characteristic	Any activity[1]	Varsity sports	Intramural sports	School music group	School play or musical	Yearbook or newspaper	Academic clubs	Hobby clubs
Total	**83.4**	**53.9**	**19.8**	**20.9**	**11.0**	**8.8**	**30.1**	**7.2**
Sex								
Male	83.8	59.5	20.7	15.0	8.4	6.8	26.7	7.6
Female	82.9	47.7	18.8	26.8	13.6	10.8	33.5	6.7
Race/ethnicity								
White	84.6	56.7	19.0	21.7	11.0	8.5	31.1	7.4
Black	83.2	51.0	22.3	22.3	12.1	10.5	25.1	5.2
Hispanic	75.7	40.7	18.7	14.1	9.2	7.3	26.7	6.4
Asian/Pacific Islander	83.2	51.5	27.6	20.1	13.0	12.7	35.9	11.5
American Indian/ Alaskan Native	80.4	46.1	20.1	19.5	9.8	13.1	31.2	7.2
SES quartile[2]								
Lowest	75.9	36.9	16.6	18.0	9.0	7.3	24.4	5.6
Middle	83.4	56.2	21.2	21.2	11.1	8.4	30.8	6.9
Highest	91.0	67.4	21.4	23.5	12.7	11.1	34.7	9.2

[1] Any activity is a measure of the percentage of students who reported that they had participated in at least one activity during the school year. This category includes only those activities shown in this table and cannot be compared to the "any activity" category in tables 43-1 or 43-2.

[2] SES quartiles provide a relative measure of the socioeconomic status of families. The middle two quartiles were collapsed, creating a three-level SES scale with the values "lowest" (lowest quartile), "middle" (the two middle quartiles), and highest (highest quartile). See Glossary for further explanation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, First Follow-up, Student Survey, 1990.

Table 44-1 Percentage of 12th-grade students whose parents reported that school personnel contacted them at least once during the current school year for various reasons, by race/ethnicity: 1992

Reason school personnel contacted parents	Total	Racial/ethnic group				
		White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native
Discuss:						
Student's academic performance	52.7	52.9	49.0	55.8	47.5	61.6
Student's academic program	43.8	44.0	44.6	41.7	38.5	54.7
Student's post-high school plans	37.1	37.2	38.2	35.8	33.2	44.5
Student's attendance	37.0	36.7	34.3	39.7	42.0	40.2
Student's behavior	20.1	18.7	29.2	19.4	17.4	28.1
Request parent volunteer time at school	55.0	58.5	52.0	38.6	47.0	42.4
Inform parents how to help student with school work	22.3	21.3	29.7	20.4	21.4	29.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Parent Survey, 1992.

Table 44-2 Percentage of 12th-grade students whose parents reported that school personnel contacted them at least once for various reasons during the current school year, by parents' highest education level: 1992

Reason school personnel contacted parents	Total	Parents' highest education level			
		No high school diploma	High school diploma	Some college	College degree
Discuss:					
Student's academic performance	52.7	45.8	51.6	53.3	54.2
Student's academic program	43.8	40.5	40.2	42.8	48.3
Student's post-high school plans	37.1	31.6	31.4	34.3	45.9
Student's attendance	37.0	33.1	39.5	36.4	37.0
Student's behavior	20.1	18.6	22.9	22.0	16.2
Request parent volunteer time at school	55.0	31.3	42.3	54.8	69.6
Inform parents how to help student with school work	22.3	20.4	22.6	21.1	24.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Parent Survey, 1992.

Table 44-3 Percentage of 12th-grade students in public schools whose parents reported that school personnel contacted them at least once during the current school year for various reasons, by percentage of students receiving free or reduced-price lunch and urbanicity: 1992

Percentage receiving free or reduced-price lunch and urbanicity	Reason school personnel contacted parents						
	Student's academic performance	Student's academic program	Student's post-high school plans	Student's attendance	Student's behavior	Request parent volunteers	Inform parent how to help student
Total	**52.7**	**43.8**	**37.1**	**37.0**	**20.1**	**55.0**	**22.3**
Percent of students receiving free or reduced-price lunch							
0–5 percent	56.5	46.6	38.7	43.9	20.7	57.8	24.2
6–20 percent	52.5	43.2	34.3	38.3	20.1	54.0	20.7
21–40 percent	48.8	38.8	33.5	35.3	19.1	50.7	20.0
41 percent or higher	48.8	38.7	32.8	37.8	20.4	42.4	18.6
Urbanicity							
Urban	51.1	41.6	33.0	43.9	19.4	47.9	24.5
Suburban	54.6	45.4	37.3	39.9	21.3	53.6	21.6
Rural	49.3	38.8	33.6	33.0	18.4	53.9	18.1
Poverty* within urbanicity							
Urban							
Low	49.3	45.2	31.5	49.1	18.6	61.3	23.9
Low-middle	55.7	45.1	32.2	47.8	21.3	55.0	29.8
Middle-high	47.3	41.5	34.6	39.9	18.0	44.0	23.2
High	51.8	36.7	32.3	43.1	20.8	36.9	21.4
Suburban							
Low	58.6	47.6	40.7	44.4	22.0	58.5	24.1
Low-middle	52.6	44.9	36.7	38.2	21.3	52.3	19.9
Middle-high	52.0	38.3	32.0	34.4	20.5	50.7	21.3
High	49.3	49.3	33.7	39.0	20.9	42.9	17.1
Rural							
Low	53.0	43.1	35.9	36.4	16.7	51.2	24.6
Low-middle	50.5	39.5	32.0	32.8	17.5	56.0	16.4
Middle-high	47.9	37.8	33.8	33.4	18.9	54.0	17.7
High	45.5	35.5	32.8	31.9	19.9	47.8	16.5

* Poverty level is defined as the percentage of students who participate in the free lunch program. Low poverty means 0–5 percent of students are on free lunch, low-middle means 6–20 percent, middle-high means 21–40 percent, and high poverty level means over 40 percent of the students participate in the free lunch program.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Parent Survey, 1992.

Table 44-4 Percentage of 12th-grade students whose parents reported that school personnel contacted them at least once during the current school year for various reasons, by achievement quartile: 1992

Reason school personnel contacted parents	Total	Achievement quartile*			
		First	Second	Third	Fourth
Discuss:					
Student's academic performance	52.7	56.9	53.8	50.3	50.2
Student's academic program	43.8	44.2	39.9	42.8	45.3
Student's post-high school plans	37.1	34.0	32.4	36.5	45.5
Student's attendance	37.0	38.5	37.2	37.4	32.5
Student's behavior	20.1	31.2	20.4	15.6	12.7
Request parent volunteer time at school	55.0	42.9	49.5	58.6	68.0
Inform parents how to help student with school work	22.3	26.4	22.5	21.2	21.0

* The achievement quartiles are taken from a composite test score taken in 12th grade. The first quartile is the lowest quartile, and the fourth quartile is the highest.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Parent Survey, 1992.

Table 44-5 Percentage of 12th-grade students whose parents reported that school personnel contacted them at least once during the current school year for various reasons, by school size: 1992

Reason school personnel contacted parents	Total	Number of students enrolled in school				
		0–399	400–799	800–1,199	1,200–1,599	1,600 or more
Discuss:						
Student's academic performance	52.7	54.1	52.9	50.1	52.0	53.8
Student's academic program	43.8	47.0	45.8	40.7	41.7	42.3
Student's post-high school plans	37.1	45.2	40.3	35.4	34.3	34.1
Student's attendance	37.0	24.5	31.7	38.4	37.7	46.1
Student's behavior	20.1	17.0	19.6	20.4	19.6	20.1
Request parent volunteer time at school	55.0	68.1	57.9	54.4	55.2	47.6
Inform parents how to help student with school work	22.3	22.7	21.8	22.0	22.0	21.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Parent Survey, 1992.

Table 45-1 Average percentage of students absent, by selected school characteristics: 1990–91

School characteristics	Total	Central city	Urban fringe/ large town	Rural/ small town
Total	5.9	6.6	6.0	5.3
Control				
Public	6.1	7.3	6.2	5.5
Private	4.9	5.1	5.4	4.2
Public level				
Elementary	5.3	6.0	5.4	4.7
Middle/junior high	6.6	8.0	6.6	5.8
Senior high	8.2	11.5	8.8	7.1
Combined	7.5	12.2	7.9	6.1
Private level				
Elementary	5.0	5.0	5.6	4.2
Middle/junior high	—	—	—	—
Senior high	4.9	5.5	5.0	3.3
Combined	4.9	5.2	4.9	4.6
Public school size				
Elementary				
Less than 300	5.4	6.9	6.6	4.8
300–499	5.0	5.4	5.2	4.6
500 or more	5.4	6.2	5.0	4.8
Middle/junior high				
Less than 400	6.1	9.2	8.5	5.3
400–699	6.3	7.5	5.8	6.1
700 or more	7.3	8.1	6.8	6.5
Senior high				
Less than 500	8.3	14.5	12.8	7.2
500–999	7.4	10.6	7.6	6.7
1000 or more	8.9	10.6	7.9	7.9
Combined				
Less than 300	8.8	13.2	9.2	7.0
300–499	6.0	—	—	4.9
500 or more	5.7	7.8	4.6	5.4
Public school percent minority				
Elementary				
Less than 20 percent	4.7	4.6	4.8	4.7
20 percent or more	6.0	6.5	6.2	5.0
Middle/junior high				
Less than 20 percent	5.6	5.8	5.7	5.5
20 percent or more	7.6	8.7	7.8	6.2
Senior high				
Less than 20 percent	7.0	7.5	7.8	6.8
20 percent or more	10.4	13.0	10.1	8.3
Combined				
Less than 20 percent	5.3	6.8	6.6	5.0
20 percent or more	9.9	13.8	9.0	8.1

Table 45-1 Average percentage of students absent, by selected school characteristics: 1990–91—Continued

School characteristics	Total	Central city	Urban fringe/ large town	Rural/ small town
Public school percent free or reduced-price lunch				
Elementary				
0–5 percent	5.0	6.1	4.7	5.0
6–20 percent	4.6	4.3	4.8	4.6
21–40 percent	4.7	5.1	5.2	4.4
41–100 percent	6.1	6.8	6.7	5.1
Middle/junior high				
0–5 percent	4.8	—	4.7	—
6–20 percent	5.8	5.9	6.1	5.5
21–40 percent	6.1	7.1	6.6	5.4
41–100 percent	8.1	9.8	8.7	6.6
Senior high				
0–5 percent	7.0	10.7	7.4	5.8
6–20 percent	7.4	8.7	9.2	6.4
21–40 percent	7.8	12.8	8.3	6.6
41–100 percent	9.6	14.4	10.6	7.4
Combined				
0–5 percent	—	—	—	—
6–20 percent	6.7	—	—	6.0
21–40 percent	5.7	—	—	5.1
41–100 percent	8.5	15.0	9.9	5.8

—Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher and School Questionnaires).

Table 45-2 Percentage of teachers who reported that student absenteeism, student tardiness, and students' cutting class were serious problems in their schools, by selected school characteristics: 1990–91

School characteristics	Absenteeism				Tardiness				Cutting class			
	Total	Central city	Urban fringe/ large town	Rural/ small town	Total	Central city	Urban fringe/ large town	Rural/ small town	Total	Central city	Urban fringe/ large town	Rural/ small town
Total	12.7	17.5	11.6	10.1	10.2	15.5	9.5	6.9	4.1	6.9	3.6	2.4
Control												
Public	14.1	20.7	13.0	10.6	11.2	18.1	10.5	7.1	4.6	8.2	4.0	2.5
Private	2.6	2.9	2.3	2.8	3.4	3.7	2.6	3.3	0.7	0.8	0.4	1.1
Public level												
Elementary	6.1	10.5	4.9	3.7	4.6	8.9	4.2	2.0	0.4	0.8	0.1	0.3
Middle/junior high	12.7	19.1	11.1	8.9	12.2	21.8	8.9	7.3	4.1	8.7	3.0	1.4
Senior high	28.8	44.4	27.5	21.9	21.7	35.7	21.6	14.7	11.9	24.3	11.0	6.3
Combined	13.3	20.9	12.8	11.4	10.6	14.6	13.6	8.5	3.7	5.8	5.5	2.5
Private level												
Elementary	1.0	1.3	0.9	0.5	1.6	2.3	1.1	1.2	0.2	0.2	0.1	0.3
Middle/junior high	0.0	—	—	—	6.2	—	—	—	0.0	—	—	—
Senior high	5.4	5.4	5.2	5.3	6.1	7.2	4.6	4.4	1.4	1.5	1.3	1.3
Combined	3.6	3.5	3.0	4.7	4.0	3.1	4.0	5.1	1.2	1.2	0.7	2.2
Public school size												
Elementary												
Less than 300	3.9	7.1	3.1	3.3	2.1	3.6	2.7	1.6	0.1	0.1	0.0	0.2
300–499	5.3	10.2	3.4	3.5	4.2	7.6	3.4	2.7	0.3	0.5	0.0	0.4
500 or more	7.4	11.1	6.4	4.1	5.8	10.3	5.1	1.6	0.6	1.1	0.2	0.4
Middle/junior high												
Less than 400	9.1	13.4	10.2	8.2	7.6	19.8	6.1	6.1	2.0	6.7	2.5	1.2
400–699	11.1	19.6	7.6	9.0	9.3	18.2	5.2	7.5	2.5	8.6	0.3	0.8
700 or more	15.2	19.4	13.9	9.4	16.0	23.6	12.2	8.2	6.1	8.9	5.1	2.8
Senior high												
Less than 500	18.8	31.3	31.2	16.8	12.4	25.9	20.8	10.7	4.5	14.6	9.2	3.4
500–999	23.2	32.5	22.3	21.7	17.2	27.7	18.9	14.2	7.3	13.8	7.1	5.9
1,000 or more	36.0	47.6	28.9	31.1	28.0	38.0	22.5	22.3	17.5	27.0	12.4	12.0
Combined												
Less than 300	14.2	21.8	9.4	11.5	10.3	13.6	2.1	10.6	2.4	4.1	2.3	1.5
300–499	8.9	10.6	11.2	7.7	9.3	2.3	18.9	5.3	3.8	1.5	9.2	1.4
500 or more	16.0	22.3	17.4	14.0	11.8	19.4	14.0	9.3	4.7	9.3	2.5	4.0
Public school percent minority												
Elementary												
Less than 20 percent	2.8	3.2	2.3	3.1	2.2	3.9	2.7	1.4	0.2	0.2	0.1	0.2
20 percent or more	9.7	12.7	8.2	5.4	7.5	10.4	6.0	3.4	0.7	1.0	0.1	0.8
Middle/junior high												
Less than 20 percent	7.6	10.5	6.8	7.4	4.9	7.7	4.4	4.5	0.9	1.6	1.2	0.4
20 percent or more	17.6	21.5	17.5	11.2	19.2	25.7	15.7	11.6	7.3	10.6	5.7	3.2
Senior high												
Less than 20 percent	19.2	24.3	19.7	18.1	14.1	19.5	16.5	11.9	5.2	10.5	6.1	3.9
20 percent or more	41.6	51.2	37.3	32.7	31.8	41.2	28.0	22.5	20.8	29.0	17.2	13.2
Combined												
Less than 20 percent	10.6	12.9	11.8	10.2	7.9	11.0	9.9	7.2	1.7	6.6	1.7	1.3
20 percent or more	16.7	23.1	13.5	14.0	13.9	15.6	16.1	11.3	6.1	5.6	8.1	5.3

Table 45-2 Percentage of teachers who reported that student absenteeism, student tardiness, and students' cutting class were serious problems in their schools, by selected school characteristics: 1990–91—Continued

School characteristics	Absenteeism				Tardiness				Cutting class			
	Total	Central city	Urban fringe/ large town	Rural/ small town	Total	Central city	Urban fringe/ large town	Rural/ small town	Total	Central city	Urban fringe/ large town	Rural/ small town
Public school percent free ore reduced-price lunch												
Elementary												
0–5 percent	1.5	7.0	0.4	0.8	1.3	2.7	1.4	0.0	0.0	0.1	0.0	0.0
6–20 percent	1.7	1.3	1.5	2.2	2.4	3.1	2.6	1.8	0.2	0.0	0.1	0.3
21–40 percent	3.9	4.7	3.5	3.8	2.7	4.3	3.8	1.5	0.3	0.3	0.3	0.4
41-100 percent	10.9	14.5	13.4	5.1	7.9	11.9	8.5	2.8	0.7	1.2	0.1	0.3
Middle/junior high												
0–5 percent	3.7	3.8	2.1	8.5	1.9	9.8	0.0	1.6	0.2	1.5	0.0	0.0
6–20 percent	7.9	9.1	8.6	6.5	5.7	11.8	4.7	3.9	1.2	1.9	1.8	0.2
21–40 percent	11.3	15.6	14.3	6.7	10.7	12.9	12.0	8.5	2.6	4.9	2.0	1.5
41-100 percent	22.4	27.2	22.9	15.1	24	32.9	24.3	10.8	10.1	14.7	10.5	3.3
Senior high												
0–5 percent	17.2	27.4	17.4	13.8	15.8	22.7	17.4	11.3	5.7	15.8	6.0	2.5
6–20 percent	26.3	33.2	29.7	21.0	19.3	28.9	21.4	13.9	9.8	16.0	12.3	5.5
21–40 percent	38.1	57.6	43.8	24.6	26.8	41.6	33.1	15.8	16.0	31.1	17.8	6.6
41-100 percent	40.1	55.4	42.0	28.4	32.0	49.2	33.2	19.0	21.4	35.5	18.7	11.8
Combined												
0–5 percent	5.2	—	3.3	9.2	6.7	—	7.4	3.5	0.6	—	0.0	1.1
6–20 percent	11.3	19.8	16.0	6.8	9.4	19.0	8.8	5.9	3.8	9.8	3.2	1.7
21–40 percent	11.8	3.3	12.1	12.4	8.1	0.7	7.4	8.8	1.6	1.6	1.6	1.6
41-100 percent	16.3	29.4	13.8	12.8	13.1	16.0	18.0	9.8	5.3	5.5	8.4	3.8

—Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 (Teacher and School Questionnaires).

Table 46-1 Percentage of the eighth-grade class of 1988 who changed schools after entering first grade and before the middle of eighth grade and between the middle of eighth grade and Spring 1992, by selected background characteristics

Background characteristics in 1988	Total	Number of school changes after entering first grade and before the middle of eighth grade		Number of school changes between the middle of eighth grade and Spring 1992	
		Less than 2	2 or more	Less than 2	2 or more
		(Percent)			
Parents' highest education level					
Less than high school	10.8	63.9	36.1	87.4	12.6
High school diploma/GED	20.7	70.6	29.4	90.5	9.5
Some college	41.1	69.2	30.8	90.7	9.3
College graduate/higher	27.4	71.0	29.0	91.0	9.0
Socioeconomic status quartile					
Lowest	24.4	64.9	35.1	88.1	11.9
Second	24.7	69.9	30.1	90.7	9.3
Third	25.1	69.5	30.5	90.4	9.6
Highest	25.8	72.8	27.2	91.5	8.5

NOTE: Mobility measures the number of times a student changed schools, excluding changes due to a single grade or level promotion.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988) and Second Follow-up (1992) Surveys.

Description of sources and definitions for student mobility

The tables and graphs in the student mobility indicator are based on data collected in the Base Year (1988) and Second Follow-up (1992) Surveys of the National Education Longitudinal Study of 1988 (NELS:88). The sample generated for this analysis consists of students who attended the eighth grade in 1988. These students and their parents were surveyed in 1988, and were resurveyed at 2-year intervals for each of the follow-up surveys.

For these analyses, students are classified according to the number of school changes they made after entering first grade and before the middle of eighth grade, and between the middle of eighth grade and spring 1992.

Student Mobility Before the Eighth Grade

This indicator classifies students according to whether or not they changed schools two or more times after entering first grade and before the middle of eighth grade. The data used to determine this index are derived from the NELS Parent Survey of 1988, where the parent was asked: "How many times has your eighth grader changed schools since he or she entered first grade? Do not count changes that occurred as a result of promotion to one grade or level or a move from one elementary school building to a middle school building in the same district."

Student Mobility During the Eighth Grade and After

This indicator classifies students according to whether or not they changed schools two or more times between the middle of eighth grade and spring 1992. The data used to determine this index are derived from the Student Survey of the Second Follow-up of 1992, where the student was asked: "How many times have you changed schools since January 1, 1988? Do not count changes that occurred as a result of promotion to one grade or level or a move from a middle school building to a high school building in the same district."

Background Characteristics Included

The tables and graphs show mobility patterns for students according to three background variables: race ethnicity, family composition, and family income. Data on these characteristics are derived from the Base Year survey conducted in 1988.

Race/Ethnicity

Students were classified into five racial/ethnic groups:

- White
- Black
- Hispanic
- Asian/Pacific Islander
- American Indian/Alaskan Native

Family Composition

Student responses about family composition at the time of the 1988 survey were classified into five groups:

- Living with mother and father
- Living with mother and an adult male, other than a biological father
- Living with father and an adult female, other than a biological mother
- Living with mother only
- Living with father only or in some other family arrangement

Family Income

Parent responses concerning annual family income at the time of the 1988 survey were classified into five categories:

Less than $10,000

$10,000–$19,999

$20,000–$34,999

$35,000–$49,999

$50,000 or more

Table 47-1 Percentage of high school seniors who reported being victimized at school, by type of victimization: 1976–93

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
1976	38.5	25.8	5.7	12.5	13.6	21.3
1977	39.7	24.9	4.8	12.2	11.1	20.7
1978	37.8	25.3	4.6	11.6	12.2	20.0
1979	33.6	24.2	4.8	11.9	12.2	20.2
1980	34.1	25.1	4.5	10.9	11.1	19.3
1981	39.8	30.6	6.6	14.8	14.6	23.7
1982	38.2	25.7	4.6	11.9	12.1	21.1
1983	39.0	25.5	4.9	13.0	14.0	24.3
1984	38.0	24.2	4.0	11.9	12.5	22.9
1985	39.1	26.9	5.9	13.5	14.2	24.6
1986	40.2	25.9	5.4	13.2	13.8	24.8
1987	42.0	26.6	4.9	12.4	15.5	24.8
1988	42.2	27.5	4.7	12.5	13.5	23.7
1989	40.1	26.6	5.6	13.6	14.0	24.0
1990	41.6	29.4	5.8	13.2	13.6	25.1
1991	41.7	28.3	6.5	16.3	15.3	25.8
1992	37.1	26.4	5.1	14.0	12.8	24.6
1993	41.4	25.8	4.7	15.6	11.4	23.1

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study.*

Table 47-2 Percentage of eighth-grade students who reported that violence is a serious problem in their school, by type of violence and student and school characteristics: 1988

Characteristic	Physical conflicts among students	Robbery or theft	Vandalism of school property	Student possession of weapons	Physical abuse of teachers	Verbal abuse of teachers
Total	**16.6**	**13.5**	**14.5**	**11.3**	**7.9**	**11.5**
Sex						
Male	14.9	13.1	14.4	11.9	7.8	11.9
Female	18.3	13.9	14.6	10.7	8.0	11.1
Race/ethnicity						
White	14.7	11.9	12.8	9.7	7.0	10.9
Black	25.6	20.1	19.5	16.8	9.6	14.1
Hispanic	17.8	14.3	17.6	13.7	10.4	13.0
Asian/Pacific Islander	17.6	16.5	20.1	14.3	11.7	11.4
American Indian/Alaskan Native	21.9	18.2	20.0	16.9	9.2	12.3
Urbanicity						
Urban	20.1	16.0	17.7	13.4	8.9	12.9
Suburban	15.7	12.2	13.7	10.7	7.8	11.7
Rural	15.2	13.2	13.1	10.4	7.3	10.2
Size of school						
Less than 400	10.0	9.8	10.4	8.5	6.6	9.0
400-599	16.2	13.0	14.9	10.4	7.8	11.5
600-799	18.2	14.7	14.6	11.7	8.6	12.1
800-999	20.5	15.6	16.5	13.2	8.5	12.6
1,000 or more	21.5	16.1	8.1	14.6	8.7	13.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988), Student Survey.

Table 47-3 Percentage of 12th-graders who reported incidences of violence or crime at school, by type of violence or crime and selected student and school characteristics: 1992

	Percent of students who strongly agree:			Percent of students who reported during the first semester:			
Characteristic	They don't feel safe at school	Fights often occur between different racial/ethnic groups	There are many gangs at school	They had something stolen from them at school	They were threatened at school	They got into a physical fight at school	They got into a physical fight to or from school
Total	**2.7**	**5.2**	**3.7**	**30.8**	**15.2**	**11.4**	**6.9**
Sex							
Male	2.8	5.2	4.0	34.0	19.8	17.4	10.8
Female	2.6	5.1	3.3	27.5	10.6	5.3	3.0
Race/ethnicity							
White	2.2	4.8	2.8	29.7	15.1	10.2	5.7
Black	4.3	5.2	3.9	34.4	15.3	17.1	10.2
Hispanic	4.0	7.2	8.2	34.2	16.3	14.2	10.0
Asian/Pacific Islander	3.0	6.8	5.6	30.2	13.0	7.6	7.4
American Indian/ Alaskan Native	2.4	2.4	8.2	35.6	17.6	19.0	15.5
Urbanicity							
Urban	3.6	5.8	6.6	30.1	15.7	11.7	7.8
Suburban	2.5	5.5	3.4	30.8	15.8	11.6	6.4
Rural	2.1	4.3	1.4	31.5	14.0	10.7	6.6
Size of school							
Less than 400	2.7	1.8	2.0	31.1	10.6	9.3	4.0
400–799	2.1	3.1	1.2	29.9	15.2	12.5	7.2
800–1,199	2.3	4.4	2.3	30.7	15.4	10.2	6.5
1,200–1,599	3.1	6.7	3.6	30.9	16.3	10.6	6.2
1,600 or more	3.5	8.1	7.4	32.3	16.2	11.9	8.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, (1992), Student Survey.

Table 47-4 Percentage of students who attended a school that was equipped with various security devices, by selected school characteristics: 1993

School characteristic	Percent of students who attended a school that: Has metal detectors	Uses security guards	Locks the doors during the day
Total	**4.9**	**28.6**	**26.2**
Urbanicity			
Urban	6.8	40.4	33.7
Suburban	2.9	15.5	15.3
Rural	1.8	8.9	14.9
School size			
Less than 300	2.6	12.2	22.7
300–599	3.6	19.9	25.3
600–999	4.8	27.6	27.3
1,000 or more	7.9	49.4	28.0
School level			
Elementary	2.1	14.1	29.8
Middle school	4.3	27.1	28.8
High school	7.6	42.9	24.4
Combined	2.9	13.1	16.6
Control			
Public	5.3	30.0	25.5
Private	0.9	13.8	33.7

NOTE: To obtain this data, parents of 12,680 children in grades 3–12 were interviewed, as were 6,504 students in grades 6–12.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993, School Safety and Discipline file.

Table 48-1 Percentage of high school seniors who reported using drugs or alcohol at any time during the previous year, by type of drug: School years ending 1975–94

Type of drug	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alcohol	84.8	85.7	87.0	87.7	88.1	87.9	87.0	86.8	87.3	86.0
Marijuana	40.0	44.5	47.6	50.2	50.8	48.8	46.1	44.3	42.3	40.0
Any illicit drug other than marijuana	26.2	25.4	26.0	27.1	28.2	30.4	34.0	30.1	28.4	28.0
Stimulants	16.2	15.8	16.3	17.1	18.3	20.8	26.0	20.3	17.9	17.7
Inhalants	—	3.0	3.7	4.1	5.4	4.6	4.1	4.5	4.3	5.1
LSD	7.2	6.4	5.5	6.3	6.6	6.5	6.5	6.1	5.4	4.7
Cocaine	5.6	6.0	7.2	9.0	12.0	12.3	12.4	11.5	11.4	11.6
Sedatives	11.7	10.7	10.8	9.9	9.9	10.3	10.5	9.1	7.9	6.6
Tranquilizers	10.6	10.3	10.8	9.9	9.6	8.7	8.0	7.0	6.9	6.1

Type of drug	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcohol	85.6	84.5	85.7	85.3	82.7	80.6	77.7	76.8	76.0	—
Marijuana	40.6	38.8	36.3	33.1	29.6	27.0	23.9	21.9	26.0	30.7
Any illicit drug other than marijuana	27.4	25.9	24.1	21.1	20.0	17.9	16.2	14.9	17.1	18.0
Stimulants	15.8	13.4	12.2	10.9	10.8	9.1	9.1	8.2	8.4	9.4
Inhalants	5.7	6.1	6.9	6.5	5.9	6.9	6.6	6.2	7.0	7.7
LSD	4.4	4.5	5.2	4.8	4.9	5.4	5.2	5.6	6.8	6.9
Cocaine	13.1	12.7	10.3	7.9	6.5	5.3	3.5	3.1	3.3	3.6
Sedatives	5.8	5.2	4.1	3.7	3.7	3.6	3.6	2.9	3.4	4.2
Tranquilizers	6.1	5.8	5.5	4.8	3.8	3.5	3.6	2.8	3.5	3.7

— Not available. Data for 1994 are not available for the trend series as the wording of the question was different in this year than in previous years.

NOTE: Only drug use that was not under a doctor's orders is included here.

SOURCE: Lloyd D. Johnson, Patrick O'Malley, and Jerald G. Bachman, "Selected Outcome Measures from the Monitoring the Future Study for Goal 6 of the National Educational Goals," Institute for Social Research, University of Michigan, July 1994.

Table 48-2 Percentage of students who reported being under the influence of drugs or alcohol at school in the previous month, by grade, type of drug, and number of days: 1992 and 1993

Type of drug and number of days	8th grade		10th grade		12th grade	
	1992	1993	1992	1993	1992	1993
Alcohol						
None	95.5	94.3	94.5	93.3	92.3	91.9
One or more days	4.5	5.7	5.5	6.7	7.8	8.0
One day	2.7	2.8	2.8	3.2	3.5	3.4
Two days	0.8	1.4	1.4	1.5	2.2	1.8
3-5 days	0.5	0.7	0.9	1.2	1.2	1.3
6-9 days	0.2	0.3	0.2	0.3	0.4	0.8
10 or more days	0.3	0.5	0.2	0.5	0.5	0.7
Marijuana or other illegal drug						
None	97.0	95.4	95.4	94.0	93.4	91.3
One or more days	3.0	4.6	4.5	6.0	6.6	8.7
One day	1.4	1.8	1.8	2.3	2.4	3.0
Two days	0.7	1.0	1.0	1.6	1.2	1.7
3-5 days	0.4	0.9	1.0	0.9	1.2	1.1
6-9 days	0.1	0.3	0.2	0.5	0.5	0.9
10 or more days	0.4	0.6	0.5	0.7	1.3	2.0

SOURCE: Johnston, Lloyd D., Patrick O'Malley, and Jerald G. Bachman, "Selected Outcome Measures from the Monitoring the Future Study for Goal 6 of the National Educational Goals," Institute for Social Research, University of Michigan, July 1994.

Table 48-3 **Percentage of high school seniors who reported using drugs or alcohol at school in the previous year, by type of drug: Selected school years ending 1980–93**

Type of drug	1980	1985	1990	1991	1992	1993
Alcohol	14.3	11.2	6.9	6.9	6.7	7.2
Marijuana	21.4	13.6	6.1	5.3	4.8	5.7
Cocaine	2.6	2.9	1.4	0.5	0.6	0.8

SOURCE: Lloyd D. Johnson, Patrick O'Malley, and Jerald G. Bachman, "Selected Outcome Measures from the Monitoring the Future Study for Goal 6 of the National Educational Goals," Institute for Social Research, University of Michigan, July 1994.

Table 48-4 **Percentage of students who reported alcohol and drug use in the last 12 months, by type of drug, grade, and situation: 1993**

	Alcohol		Marijuana or other illegal drugs	
	Percentage saying one or more times		Percentage saying one or more times	
Situation	8th grade	10th grade	8th grade	10th grade
At a school dance, game, or other school event	11.4	18.0	4.5	8.0
At school during the day	3.9	7.2	2.5	5.2
Near school	6.4	11.3	3.6	6.2

SOURCE: Lloyd D. Johnson, Patrick O'Malley, and Jerald G. Bachman, "Selected Outcome Measures from the Monitoring the Future Study for Goal 6 of the National Educational Goals," Institute for Social Research, University of Michigan, July 1994.

Table 48-5 Percentage of students who had someone offer to sell them drugs at school during the first half of the school year, by grade and year, number of offers, sex, race/ethnicity, and control of school: Spring 1988, 1990, and 1992

Sex, race/ethnicity, and control of school	8th-graders in 1988			10th-graders in 1990			12th-graders in 1992		
	Ever	Once or twice	More than twice	Ever	Once or twice	More than twice	Ever	Once or twice	More than twice
All students	**10.0**	**6.9**	**3.1**	**17.0**	**10.1**	**6.9**	**16.0**	**9.5**	**6.5**
Sex									
Male	12.2	8.1	4.0	21.8	12.6	9.3	21.7	12.0	9.7
Female	7.9	5.7	2.2	12.1	7.6	4.4	10.3	6.9	3.4
Race/ethnicity									
White	9.9	6.9	3.1	17.9	10.6	7.3	16.6	9.7	6.9
Black	7.6	5.8	1.8	10.9	7.1	3.8	9.3	6.5	2.8
Hispanic	14.3	8.9	5.3	17.2	9.4	7.9	21.1	12.2	8.9
Asian/Pacific Islander	4.8	3.5	1.3	13.3	8.5	4.9	11.4	6.7	4.8
American Indian/Alaskan Native	16.4	11.3	5.1	24.6	16.5	8.1	21.1	10.8	10.3
Control of school									
Public	11.0	7.6	3.4	17.7	10.5	7.2	16.7	9.8	6.9
Catholic	2.5	1.6	0.9	11.7	9.0	2.7	12.7	8.7	4.0
Private, other religious affiliation	2.6	1.7	0.9	2.5	1.2	1.4	3.3	2.6	0.7
Private, no religious affiliation	5.0	3.2	1.8	7.2	4.5	2.7	10.3	4.5	5.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988), First Follow-up (1990), and Second Follow-up (1992) Student Surveys.

Table 48-6 **Percentage of public school students who had someone offer to sell them drugs at school during the first half of the school year, by grade and year, number of offers, and selected school characteristics: Spring 1988, 1990, and 1992**

School characteristics	8th-graders in 1988 Ever	8th-graders in 1988 Once or twice	8th-graders in 1988 More than twice	10th-graders in 1990 Ever	10th-graders in 1990 Once or twice	10th-graders in 1990 More than twice	12th-graders in 1992 Ever	12th-graders in 1992 Once or twice	12th-graders in 1992 More than twice
All public schools	**11.0**	**7.6**	**3.4**	**17.7**	**10.5**	**7.2**	**16.7**	**9.8**	**6.9**
Minority enrollment									
Less than 20 percent	10.1	7.0	3.2	17.4	10.2	7.2	—	—	—
20 percent or more	12.3	8.6	3.7	17.3	10.1	7.2	—	—	—
School size									
Less than 150	7.6	4.4	3.2	2.1	0.0	2.1	9.0	4.5	4.5
150-449	8.7	6.0	2.6	11.5	7.6	3.9	8.9	5.2	3.7
450-749	11.7	8.3	3.4	12.8	7.4	5.4	15.9	8.9	7.0
750 or more	11.9	8.1	3.8	19.2	11.1	8.1	18.4	10.9	7.4
Metropolitan status									
Urban	12.6	9.1	3.5	17.0	9.8	7.2	18.1	10.3	7.8
Suburban	11.3	7.6	3.7	19.3	11.1	8.1	19.3	11.0	8.4
Rural	9.6	6.6	2.9	15.4	9.3	6.1	12.3	8.0	4.3
Percent of students receiving free ore reduced-price lunch									
Total									
0-5	9.3	6.4	3.0	19.8	11.8	8.0	20.3	11.4	9.0
6-20	11.8	8.4	3.4	17.8	10.5	7.3	17.2	10.1	7.1
21-40	11.3	7.6	3.7	14.9	8.4	6.4	14.1	8.9	5.2
41 or more	11.2	7.9	3.3	16.1	9.3	6.8	15.8	8.9	6.9
Urban									
0-5	11.5	9.3	2.2	14.0	8.9	5.1	17.6	11.1	6.5
6-20	13.7	9.2	4.5	16.5	9.4	7.1	21.5	13.7	7.8
21-40	13.8	10.4	3.4	17.3	9.1	8.2	17.4	9.6	7.7
41 or more	11.9	8.5	3.4	14.9	8.1	6.8	17.2	8.4	8.8
Suburban									
0-5	9.5	6.0	3.5	21.4	12.9	8.5	22.4	11.9	10.4
6-20	11.8	8.5	3.3	19.4	11.3	8.1	19.3	10.9	8.3
21-40	13.5	8.8	4.7	15.9	7.7	8.2	14.6	9.6	5.0
41 or more	11.7	8.0	3.7	14.3	8.0	6.3	17.7	8.9	8.9
Rural									
0-5	7.7	6.1	1.6	15.6	8.0	7.6	13.4	8.9	4.5
6-20	10.6	7.6	3.0	16.8	10.2	6.6	11.4	6.7	4.7
21-40	9.1	5.8	3.3	13.2	8.3	4.9	12.2	8.2	4.0
41 or more	10.1	7.3	2.8	18.1	11.1	7.0	13.6	9.4	4.3

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988), First Follow-up (1990), and Second Follow-up (1992) Student Surveys.

Table 49-1 Total enrollment in institutions of higher education, by control and type of institution and race/ethnicity of student: Fall, selected years 1976–92

Control and type of institution and race/ethnicity of student	Number, in thousands									
	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
All institutions	**10,986**	**11,231**	**12,087**	**12,388**	**12,235**	**12,504**	**13,043**	**13,710**	**14,359**	**14,491**
White	9,076	9,194	9,833	9,997	9,815	9,921	10,283	10,675	10,990	10,870
Minority	1,691	1,785	1,949	2,059	2,085	2,238	2,399	2,639	2,953	3,164
Black	1,033	1,054	1,107	1,101	1,076	1,082	1,130	1,223	1,335	1,394
Hispanic	384	417	472	519	535	618	680	758	867	954
Asian/Pacific Islander	198	235	286	351	390	448	497	555	637	697
American Indian/Alaskan Native	76	78	84	88	84	90	93	103	114	119
Nonresident alien	219	253	305	331	335	345	361	397	416	458
Public institutions	**8,641**	**8,770**	**9,456**	**9,695**	**9,458**	**9,714**	**10,156**	**10,741**	**11,310**	**11,388**
White	7,095	7,136	7,656	7,785	7,543	7,654	7,964	8,340	8,622	8,487
Minority	1,401	1,466	1,596	1,692	1,696	1,836	1,955	2,136	2,412	2,592
Black	831	840	876	873	844	854	881	952	1,053	1,101
Hispanic	337	363	406	446	456	532	587	648	742	822
Asian/Pacific Islander	166	195	240	296	323	371	406	445	516	566
American Indian/Alaskan Native	68	68	74	77	72	79	81	90	100	103
Nonresident alien	145	167	204	219	219	224	238	265	275	310
Private institutions	**2,345**	**2,461**	**2,630**	**2,693**	**2,777**	**2,790**	**2,887**	**2,970**	**3,049**	**3,104**
White	1,982	2,058	2,177	2,212	2,272	2,267	2,319	2,335	2,368	2,383
Minority	290	319	353	368	389	403	444	503	541	572
Black	202	215	231	228	232	228	248	271	282	293
Hispanic	47	55	66	74	79	86	93	110	125	133
Asian/Pacific Islander	32	40	47	55	67	77	91	110	121	132
American Indian/Alaskan Native	9	9	10	10	11	11	11	12	14	16
Nonresident alien	73	85	101	113	116	120	123	132	141	149
All 4-year institutions	**7,107**	**7,203**	**7,565**	**7,648**	**7,708**	**7,824**	**8,175**	**8,529**	**8,707**	**8,768**
White	5,999	6,027	6,275	6,306	6,301	6,337	6,582	6,757	6,791	6,747
Minority	931	975	1,050	1,073	1,124	1,195	1,292	1,450	1,573	1,664
Black	604	612	634	612	617	615	656	715	758	792
Hispanic	174	190	217	229	246	278	296	345	383	410
Asian/Pacific Islander	119	138	162	193	223	262	297	343	382	408
American Indian/Alaskan Native	35	35	37	39	38	40	42	48	51	55
Nonresident alien	177	201	241	270	282	292	302	322	343	357
Public 4-year institutions	**4,893**	**4,896**	**5,128**	**5,176**	**5,196**	**5,300**	**5,544**	**5,848**	**5,905**	**5,902**
White	4,120	4,085	4,243	4,258	4,230	4,275	4,455	4,606	4,597	4,534
Minority	667	691	741	756	796	850	908	1,046	1,102	1,156
Black	422	425	438	421	427	424	449	495	516	536
Hispanic	129	140	156	164	179	206	216	263	279	295
Asian/Pacific Islander	88	99	117	140	160	188	210	251	266	282
American Indian/Alaskan Native	28	27	29	31	30	32	33	38	41	43
Nonresident alien	106	120	144	161	170	176	181	196	206	213

Table 49-1 Total enrollment in institutions of higher education, by control and type of institution and race/ethnicity of student: Fall, selected years 1976–92—Continued

Control and type of institution and race/ethnicity of student	Number, in thousands									
	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
Private 4-year institutions	**2,214**	**2,306**	**2,438**	**2,473**	**2,510**	**2,524**	**2,631**	**2,731**	**2,802**	**2,866**
White	1,879	1,942	2,032	2,048	2,071	2,062	2,127	2,163	2,194	2,213
Minority	264	283	309	317	328	345	384	440	472	508
Black	182	187	196	192	190	191	208	228	242	256
Hispanic	44	50	60	65	67	73	80	96	104	115
Asian/Pacific Islander	31	39	45	53	62	74	87	107	115	126
American Indian/Alaskan Native	7	8	8	8	8	8	9	10	11	12
Nonresident alien	71	81	97	108	112	117	120	128	137	145
All 2-year institutions	**3,879**	**4,028**	**4,521**	**4,740**	**4,527**	**4,680**	**4,868**	**5,181**	**5,652**	**5,723**
White	3,077	3,167	3,558	3,692	3,514	3,584	3,702	3,918	4,199	4,123
Minority	760	810	899	987	961	1,043	1,107	1,189	1,380	1,500
Black	429	443	472	489	459	467	473	509	578	602
Hispanic	210	227	255	291	289	340	384	414	484	545
Asian/Pacific Islander	79	97	124	158	167	186	199	212	256	289
American Indian/Alaskan Native	41	43	47	49	46	51	50	54	63	64
Nonresident alien	42	52	64	61	53	53	60	75	74	100
Public 2-year institutions	**3,748**	**3,874**	**4,329**	**4,520**	**4,260**	**4,414**	**4,612**	**4,997**	**5,405**	**5,486**
White	2,974	3,051	3,413	3,527	3,313	3,379	3,509	3,780	4,025	3,953
Minority	735	775	855	936	899	986	1,047	1,153	1,310	1,436
Black	410	415	438	452	417	430	433	481	537	565
Hispanic	208	222	250	282	277	326	371	409	463	527
Asian/Pacific Islander	78	96	123	155	162	183	196	210	250	284
American Indian/Alaskan Native	39	41	45	46	42	47	48	52	60	60
Nonresident alien	39	48	60	57	49	49	56	64	70	97
Private 2-year institutions	**131**	**155**	**193**	**220**	**266**	**266**	**256**	**244**	**247**	**238**
White	103	116	145	165	202	205	193	175	174	170
Minority	25	35	44	51	61	57	60	66	69	64
Black	20	28	35	37	41	37	41	43	40	37
Hispanic	3	5	5	9	12	14	13	15	20	18
Asian/Pacific Islander	1	1	2	3	5	4	4	5	6	6
American Indian/Alaskan Native	2	2	2	3	4	3	3	3	3	4
Nonresident alien	3	4	4	4	4	4	3	4	4	4

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 202 (based on the IPEDS/HEGIS surveys of Fall Enrollment, various years).

Table 49-2 Percentage distribution of total enrollment in institutions of higher education, by control and type of institution and race/ethnicity of student: Fall, selected years 1976–92

Control and type of institution and race/ethnicity of student	Number, in thousands									
	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
All institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	82.6	81.9	81.4	80.7	80.2	79.3	78.8	77.9	76.5	75.0
Minority	15.4	15.9	16.1	16.6	17.0	17.9	18.4	19.2	20.6	21.8
Black	9.4	9.4	9.2	8.9	8.8	8.7	8.7	8.9	9.3	9.6
Hispanic	3.5	3.7	3.9	4.2	4.4	4.9	5.2	5.5	6.0	6.6
Asian or Pacific Islander	1.8	2.1	2.4	2.8	3.2	3.6	3.8	4.0	4.4	4.8
American Indian/Alaskan Native	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8
Nonresident alien	2.0	2.3	2.5	2.7	2.7	2.8	2.8	2.9	2.9	3.2
Public institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	82.1	81.4	81.0	80.3	79.8	78.8	78.4	77.6	76.2	74.5
Minority	16.2	16.7	16.9	17.5	17.9	18.9	19.2	19.9	21.3	22.8
Black	9.6	9.6	9.3	9.0	8.9	8.8	8.7	8.9	9.3	9.7
Hispanic	3.9	4.1	4.3	4.6	4.8	5.5	5.8	6.0	6.6	7.2
Asian or Pacific Islander	1.9	2.2	2.5	3.1	3.4	3.8	4.0	4.1	4.6	5.0
American Indian/Alaskan Native	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9
Nonresident alien	1.7	1.9	2.2	2.3	2.3	2.3	2.3	2.5	2.4	2.7
Private institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	84.5	83.6	82.8	82.1	81.8	81.3	80.3	78.6	77.7	76.8
Minority	12.4	13.0	13.4	13.7	14.0	14.4	15.4	16.9	17.7	18.4
Black	8.6	8.7	8.8	8.5	8.4	8.2	8.6	9.1	9.2	9.4
Hispanic	2.0	2.2	2.5	2.7	2.8	3.1	3.2	3.7	4.1	4.3
Asian or Pacific Islander	1.4	1.6	1.8	2.0	2.4	2.8	3.2	3.7	4.0	4.3
American Indian/Alaskan Native	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
Nonresident alien	3.1	3.5	3.8	4.2	4.2	4.3	4.3	4.4	4.6	4.8
All 4-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	84.4	83.7	82.9	82.5	81.7	81.0	80.5	79.2	78.0	77.0
Minority	13.1	13.5	13.9	14.0	14.6	15.3	15.8	17.0	18.1	19.0
Black	8.5	8.5	8.4	8.0	8.0	7.9	8.0	8.4	8.7	9.0
Hispanic	2.4	2.6	2.9	3.0	3.2	3.6	3.6	4.0	4.4	4.7
Asian or Pacific Islander	1.7	1.9	2.1	2.5	2.9	3.3	3.6	4.0	4.4	4.7
American Indian/Alaskan Native	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6
Nonresident alien	2.5	2.8	3.2	3.5	3.7	3.7	3.7	3.8	3.9	4.1
Public 4-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	84.2	83.4	82.7	82.3	81.4	80.7	80.4	78.8	77.8	76.8
Minority	13.6	14.1	14.5	14.6	15.3	16.0	16.4	17.9	18.7	19.6
Black	8.6	8.7	8.5	8.1	8.2	8.0	8.1	8.5	8.7	9.1
Hispanic	2.6	2.9	3.0	3.2	3.4	3.9	3.9	4.5	4.7	5.0
Asian or Pacific Islander	1.8	2.0	2.3	2.7	3.1	3.5	3.8	4.3	4.5	4.8
American Indian/Alaskan Native	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
Nonresident alien	2.2	2.5	2.8	3.1	3.3	3.3	3.3	3.4	3.5	3.6

Table 49-2 Percentage distribution of total enrollment in institutions of higher education, by control and type of institution and race/ethnicity of student: Fall, selected years 1976–92 — Continued

Control and type of institution and race/ethnicity of student	Number, in thousands									
	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
Private 4-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	84.9	84.2	83.3	82.8	82.5	81.7	80.8	79.2	78.3	77.2
Minority	11.9	12.3	12.7	12.8	13.1	13.7	14.6	16.1	16.8	17.7
Black	8.2	8.1	8.0	7.8	7.6	7.6	7.9	8.3	8.6	8.9
Hispanic	2.0	2.2	2.5	2.6	2.7	2.9	3.0	3.5	3.7	4.0
Asian or Pacific Islander	1.4	1.7	1.8	2.1	2.5	2.9	3.3	3.9	4.1	4.4
American Indian/Alaskan Native	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Nonresident alien	3.2	3.5	4.0	4.4	4.5	4.6	4.6	4.7	4.9	5.1
All 2-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	79.3	78.6	78.7	77.9	77.6	76.6	76.0	75.6	74.3	72.0
Minority	19.6	20.1	19.9	20.8	21.2	22.3	22.7	22.9	24.4	26.2
Black	11.1	11.0	10.4	10.3	10.1	10.0	9.7	9.8	10.2	10.5
Hispanic	5.4	5.6	5.6	6.1	6.4	7.3	7.9	8.0	8.6	9.5
Asian or Pacific Islander	2.0	2.4	2.7	3.3	3.7	4.0	4.1	4.1	4.5	5.0
American Indian/Alaskan Native	1.1	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.1
Nonresident alien	1.1	1.3	1.4	1.3	1.2	1.1	1.2	1.4	1.3	1.7
Public 2-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	79.3	78.8	78.8	78.0	77.8	76.6	76.1	75.6	74.5	72.1
Minority	19.6	20.0	19.8	20.7	21.1	22.3	22.7	23.1	24.2	26.2
Black	10.9	10.7	10.1	10.0	9.8	9.7	9.4	9.6	9.9	10.3
Hispanic	5.5	5.7	5.8	6.2	6.5	7.4	8.0	8.2	8.6	9.6
Asian or Pacific Islander	2.1	2.5	2.8	3.4	3.8	4.1	4.2	4.2	4.6	5.2
American Indian/Alaskan Native	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.1
Nonresident alien	1.0	1.2	1.4	1.3	1.2	1.1	1.2	1.3	1.3	1.8
Private 2-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	78.6	74.8	75.1	75.0	75.9	77.1	75.4	71.7	70.4	71.4
Minority	19.1	22.6	22.8	23.2	22.9	21.4	23.4	27.0	27.9	26.9
Black	15.3	18.1	18.1	16.8	15.4	13.9	16.0	17.6	16.2	15.5
Hispanic	2.3	3.2	2.6	4.1	4.5	5.3	5.1	6.1	8.1	7.6
Asian or Pacific Islander	0.8	0.6	1.0	1.4	1.9	1.5	1.6	2.0	2.4	2.5
American Indian/Alaskan Native	1.5	1.3	1.0	1.4	1.5	1.1	1.2	1.2	1.2	1.7
Nonresident alien	2.3	2.6	2.1	1.8	1.5	1.5	1.2	1.6	1.6	1.7

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 202 (based on the IPEDS/HEGIS surveys of fall enrollment, various years).

Table 50-1 Percentage of classes in 4-year colleges and universities where class size is above 25 and above 50 students, by type of institution, level of class, and rank of faculty: Fall 1987 and fall 1992

Faculty rank	Research		Doctoral		Comprehensive		Liberal arts	
	Class size		Class size		Class size		Class size	
	Above 25	Above 50	Above 25	Above 50	Above 25	Above 50	Above 25	Aabove 50
Fall 1992								
Undergraduate, lower division courses								
Total	**55**	**30**	**57**	**21**	**52**	**10**	**33**	**5**
Full professor	64	37	63	28	58	14	39	7
Associate professor	63	39	64	27	52	10	34	4
Assistant professor	54	31	63	24	51	10	34	5
Instructor	51	18	43	11	45	6	23	1
Lecturer	30	13	44	13	47	10	42	2
Other	(*)	(*)	(*)	(*)	36	4	15	6
Undergraduate, upper division courses								
Total	**48**	**14**	**46**	**8**	**41**	**5**	**16**	**1**
Full professor	48	14	46	9	44	6	19	1
Associate professor	49	16	48	7	44	5	18	1
Assistant professor	51	15	49	9	38	4	14	1
Instructor	38	3	41	6	38	6	12	1
Lecturer	34	17	35	11	41	3	28	4
Other	(*)	(*)	(*)	(*)	25	1	(*)	(*)
Graduate courses								
Total	**28**	**9**	**26**	**9**	**25**	**4**	**17**	**1**
Full professor	26	12	30	12	27	5	(*)	(*)
Associate professor	33	11	24	5	24	3	17	3
Assistant professor	24	2	24	10	27	5	12	0
Instructor	(*)	(*)	27	3	19	0	(*)	(*)
Lecturer	(*)	(*)	(*)	(*)	28	0	(*)	(*)
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Fall 1987								
Undergraduate, lower division courses								
Total	**57**	**32**	**56**	**20**	**50**	**9**	**30**	**4**
Full professor	73	48	62	26	57	13	33	6
Associate professor	71	44	62	31	50	8	34	3
Assistant professor	43	22	50	19	53	7	30	5
Instructor	37	3	59	10	38	7	21	2
Lecturer	38	16	(*)	(*)	48	5	(*)	(*)
Other	(*)	(*)	(*)	(*)	(*)	(*)	41	0
Undergraduate, upper division courses								
Total	**49**	**16**	**41**	**8**	**34**	**4**	**17**	**2**
Full professor	49	18	38	11	34	2	21	4
Associate professor	50	17	47	6	29	4	17	1
Assistant professor	52	10	43	12	39	4	17	1
Instructor	38	12	32	2	29	2	12	1
Lecturer	44	20	(*)	(*)	43	14	(*)	(*)
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Graduate courses								
Total	**21**	**7**	**18**	**4**	**22**	**2**	**18**	**1.3**
Full professor	18	6	20	7	22	2	(*)	(*)
Associate professor	28	10	17	3	21	4	(*)	(*)
Assistant professor	23	7	15	2	17	0	(*)	(*)
Instructor	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Lecturer	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

* Too few responses for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

Note on student exposure to faculty at institutions of higher education

The 1988 National Study of Postsecondary Faculty (NSOPF-88) was a survey of faculty who had at least some instructional duties (such as teaching one or more courses) in for-credit higher education courses during the 1987 fall term.

Unlike NSOPF-88, which was limited to faculty whose regular assignments included instruction, the faculty universe for NSOPF-93 was expanded to include anyone who was designated as faculty, whether or not their responsibilities included instruction, and other (non-faculty) personnel with instructional responsibility. For the purposes of this indicator, analysis was restricted to faculty with at least some instructional responsibilities.

Both full- and part-time faculty are included in the analysis. Teaching assistants and medical faculty were not included in the estimates.

For the purposes of this indicator, institutions of higher education were divided into four types, and courses were separated into three divisions.

Types of Institutions

Research university: Institution that is among the 100 leading universities receiving federal research funds. Each of these universities awards substantial numbers of doctorates across many fields.

Doctoral university: Institution that offers a full range of baccalaureate programs and Ph.D. degrees in at least three disciplines, but tends to be less focused on research and receives fewer federal research dollars than the research universities.

Comprehensive institution: Institution that offers liberal arts and professional programs. The master's degree is the highest degree offered.

Liberal arts institution: Institution that is smaller and generally more selective than comprehensive colleges and universities. A liberal arts institution primarily offers bachelor's degrees, although *some offer master's degrees.*

Course Divisions

Undergraduate, lower division courses: Courses designed for students in the first or second year of a 4-year bachelor's degree program.

Undergraduate, upper division courses: Courses designed for students in the third or fourth year of a 4-year bachelor's degree program.

Graduate courses: Courses designed for students in a post-baccalaureate degree program, including a master's or doctor's.

Medical Faculty

For the purposes of this indicator, medical institutions, and their faculty, were excluded from the analysis. Health science faculty teaching at the institutions included in this study were also excluded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Profiles of Faculty in Higher Education Institutions*, 1988 and 1993.

Table 51-1 Percentage of 16- to 24-year-old full-time college students who were employed in October, by sex and hours worked per week: 1970–93

October	All students			Male			Female		
	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours*	Total*	20 or more hours	35 or more * hours
1970	33.8	14.1	3.7	33.9	17.3	5.0	33.6	9.5	1.8
1971	34.1	14.8	3.7	36.5	18.5	5.4	30.8	9.6	1.2
1972	34.9	15.0	3.4	37.8	18.9	5.3	31.5	10.0	1.0
1973	36.4	16.8	4.4	39.2	21.0	6.1	32.9	11.5	2.3
1974	36.6	17.0	4.7	37.5	19.0	6.1	35.4	14.7	3.1
1975	35.2	16.6	4.6	34.7	18.2	5.9	35.8	14.7	3.1
1976	37.5	16.9	4.0	39.1	20.0	5.1	35.9	13.6	2.9
1977	38.8	18.1	4.2	38.7	19.3	5.9	39.0	16.9	2.3
1978	39.9	19.0	4.7	39.6	20.6	5.8	40.3	17.2	3.4
1979	38.1	18.0	4.0	36.7	19.3	4.6	39.5	16.6	3.4
1980	40.0	17.9	3.8	39.4	19.0	4.4	40.7	16.7	3.2
1981	39.3	18.7	4.2	38.3	19.7	4.4	40.4	17.7	3.9
1982	39.9	18.5	3.1	38.8	19.2	3.2	41.0	17.7	2.9
1983	40.4	18.8	3.8	40.0	20.6	4.7	40.8	17.0	2.9
1984	42.1	21.0	4.2	40.6	21.6	5.3	43.6	20.2	3.1
1985	44.2	21.5	4.3	42.4	22.1	4.9	46.0	20.9	3.7
1986	43.0	21.9	4.3	43.2	22.9	4.5	42.8	20.8	4.1
1987	44.2	22.3	4.3	43.6	22.7	4.8	44.9	21.8	3.6
1988	46.5	24.5	4.7	44.3	24.7	5.1	48.7	24.3	4.3
1989	46.5	25.2	5.4	44.3	25.4	5.8	48.6	24.9	4.9
1990	45.7	24.1	4.8	43.1	23.2	5.0	48.3	25.0	4.6
1991	47.2	25.4	5.6	45.2	26.5	6.5	49.1	24.4	4.7
1992	47.2	25.8	5.5	46.8	25.8	6.6	47.5	25.8	4.5
1993	46.3	24.6	5.1	44.9	24.6	5.1	47.6	24.6	5.1

* Includes those with a job but not at work during the survey week.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 51-2 Percentage of 16- to 24-year-old full-time college students who were employed in October, by family income and hours worked per week: 1970–93

	All students			Low[1]			Middle[1]			High[1]		
October	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours
1970	33.8	14.1	3.7	44.0	18.1	5.3	35.1	14.4	4.2	29.6	12.7	2.7
1971	34.1	14.8	3.7	41.9	16.2	2.3	36.4	17.1	5.1	29.4	11.5	2.2
1972	35.1	15.0	3.4	36.7	19.3	4.0	37.4	16.2	4.3	31.7	12.5	2.1
1973	36.4	16.8	4.4	42.1	19.7	4.4	37.0	18.4	5.7	34.4	14.3	3.0
1974	36.6	17.0	4.7	—	—	—	—	—	—	—	—	—
1975	35.2	16.6	4.6	33.1	14.8	4.3	38.0	19.0	5.6	32.7	14.3	3.5
1976	37.5	16.9	4.0	43.9	20.2	4.4	38.1	17.9	4.8	34.9	14.9	3.1
1977	38.8	18.1	4.2	41.4	17.6	2.7	40.7	20.3	5.6	36.0	15.9	3.0
1978	39.9	19.0	4.7	39.0	16.9	4.2	41.5	19.6	6.0	38.5	18.9	3.2
1979	38.1	18.0	4.0	41.9	20.8	5.1	39.2	19.4	4.7	35.6	15.6	2.9
1980	40.0	17.9	3.8	39.3	18.8	5.3	41.6	19.8	5.1	38.7	15.7	2.2
1981	39.3	18.7	4.2	41.9	20.9	4.3	40.1	19.5	4.5	37.6	17.1	3.7
1982	39.9	18.5	3.1	38.7	18.2	2.9	40.1	19.3	4.2	40.1	17.8	2.0
1983	40.4	18.8	3.8	40.8	18.8	4.5	41.5	20.1	4.7	39.2	17.5	2.7
1984	42.1	21.0	4.2	41.9	22.4	6.4	42.1	21.2	4.9	42.1	20.2	2.8
1985	44.2	21.5	4.3	50.6	24.2	5.1	45.5	23.4	5.1	40.5	18.6	3.2
1986	43.0	21.9	4.3	42.9	20.5	4.7	45.2	23.8	5.2	40.6	20.2	3.2
1987	44.2	22.3	4.3	48.6	23.5	3.3	46.7	25.0	5.2	39.7	18.7	3.5
1988	46.5	24.5	4.7	48.3	25.2	4.0	49.9	26.8	5.9	42.0	21.5	3.4
1989	46.5	25.2	5.4	46.5	25.4	4.3	50.1	29.8	6.9	42.2	19.7	4.0
1990	45.7	24.1	4.8	46.5	27.0	3.8	47.8	26.4	6.2	42.7	19.9	3.3
1991	47.2	25.4	5.6	51.8	29.4	6.7	48.8	27.0	5.5	43.5	21.9	5.3
1992	47.2	25.8	5.5	49.7	27.5	6.1	49.7	27.9	5.6	42.9	22.4	5.0
1993	46.3	24.6	5.1	50.8	27.5	7.8	48.4	27.1	5.6	41.7	20.0	3.2

— Not available.

[1] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent of incomes in-between.

[2] Includes those with a job but not at work during the survey week.

NOTE: For college students who are under 25 years old and not married, the family income is presumed to be that of the parental family; for married students, it is presumed to be that of the individual or his/her spouse.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 51-3 Percentage of 16- to 24-year-old part-time college students who were employed in October, by race/ethnicity and hours worked per week: 1970–93

October	All students			White			Black			Hispanic		
	Total[1]	20 or more hours	35 or more hours	Total[1]	20 or more hours	35 or more hours	Total[1]	20 or more hours	35 or more hours	Total[1]	20 or more hours	35 or more hours
1970	82.5	76.2	60.4	83.0	76.6	60.7	(2)	(2)	(2)	—	—	—
1971	83.4	75.0	51.7	83.8	75.2	53.6	79.2	74.0	36.4	—	—	—
1972	84.8	76.1	53.1	84.4	77.1	54.3	73.1	69.2	41.3	(2)	(2)	(2)
1973	85.3	76.8	52.5	86.6	77.9	53.5	70.7	66.7	42.7	(2)	(2)	(2)
1974	84.4	77.2	61.0	85.7	77.8	60.4	74.2	70.8	64.0	(2)	(2)	(2)
1975	80.8	72.1	52.6	82.4	74.1	55.1	76.0	62.5	41.3	(2)	(2)	(2)
1976	84.6	76.1	53.0	85.6	77.4	53.2	72.3	66.0	58.5	(2)	(2)	(2)
1977	83.4	75.3	53.1	86.0	77.4	54.7	65.9	61.1	44.4	(2)	(2)	(2)
1978	86.1	76.6	53.9	88.0	78.3	55.7	65.2	51.7	29.2	82.3	75.9	63.3
1979	86.9	78.8	56.6	89.2	80.8	58.2	73.5	66.3	49.0	(2)	(2)	(2)
1980	85.2	75.7	53.0	87.3	77.6	55.0	72.5	58.8	36.3	76.5	71.6	50.6
1981	85.7	76.0	51.4	87.2	77.8	52.0	75.4	61.0	41.5	(2)	(2)	(2)
1982	81.1	69.7	48.1	84.4	72.3	50.0	62.5	58.1	33.1	80.6	68.9	49.5
1983	81.7	74.8	48.1	86.6	79.2	51.9	49.2	47.5	23.8	74.0	68.0	45.0
1984	84.9	77.7	55.2	87.1	79.3	57.8	67.7	63.4	45.3	89.6	83.1	50.6
1985	85.9	79.0	52.2	87.9	81.7	56.2	71.8	66.4	42.0	85.2	70.4	28.4
1986	87.2	78.0	54.4	90.0	81.0	57.4	77.0	73.8	44.3	81.0	64.3	43.7
1987	85.4	77.4	49.5	87.2	79.2	51.4	70.9	65.8	37.3	86.5	77.4	54.1
1988	88.3	81.6	54.2	90.4	84.5	55.7	78.1	68.6	48.6	83.9	72.9	52.5
1989	87.2	80.8	55.4	89.8	83.2	58.3	73.2	67.5	43.1	85.1	79.3	55.4
1990	83.7	78.7	52.7	86.8	80.5	55.3	76.9	76.3	49.5	81.8	77.7	50.4
1991	85.8	76.3	50.9	89.0	79.1	55.3	66.1	63.4	38.4	80.2	71.0	37.4
1992	83.4	75.0	47.8	87.0	78.4	49.8	77.6	67.1	45.4	73.0	65.5	38.5
1993	84.6	75.1	43.7	88.6	78.5	46.5	65.1	58.9	36.4	76.6	65.6	31.2

— Not available.

[1] Includes those with a job but not at work during the survey week.

[2] Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 51-4 Percentage of 16- to 24-year-old part-time college students who were employed in October, by sex and hours worked per week: 1970–93

October	All students			Male			Female		
	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours
1970	82.5	76.2	60.4	87.6	82.0	66.2	77.7	71.1	55.2
1971	83.4	75.0	51.7	87.7	80.4	60.9	78.2	68.7	40.7
1972	83.1	76.1	53.1	88.5	81.5	61.5	77.4	70.4	44.2
1973	85.3	76.8	52.5	86.3	78.9	57.5	84.4	74.8	47.3
1974	84.4	77.2	61.0	88.3	82.1	65.8	80.7	72.5	56.5
1975	80.8	72.1	52.6	82.5	74.1	55.3	79.1	70.0	49.9
1976	84.6	76.1	53.0	84.0	76.4	56.2	85.3	75.9	50.3
1977	83.4	75.3	53.1	86.3	78.4	57.0	80.6	72.3	49.5
1978	86.1	76.6	53.9	88.6	80.4	61.6	83.8	72.8	47.0
1979	86.9	78.8	56.6	90.4	82.3	60.4	83.9	76.2	53.6
1980	85.2	75.7	53.0	86.5	80.2	58.2	84.2	72.3	49.1
1981	85.7	76.0	51.4	88.5	78.0	57.2	83.3	74.3	46.4
1982	81.1	69.7	48.1	79.8	70.2	50.7	82.1	69.4	46.2
1983	81.7	74.8	48.1	84.0	78.3	52.5	79.5	71.3	43.8
1984	84.9	77.7	55.2	90.0	82.0	60.1	80.6	74.2	51.2
1985	85.9	79.0	52.2	85.9	80.0	53.6	85.7	78.3	51.2
1986	87.2	78.0	54.4	87.8	81.7	59.0	86.9	75.3	50.9
1987	85.4	77.4	49.5	86.9	78.8	50.4	84.3	76.2	48.8
1988	88.3	81.6	54.2	87.4	82.1	56.1	89.2	81.3	52.7
1989	87.2	80.8	55.4	88.1	82.6	60.1	86.7	79.4	52.0
1990	83.7	78.7	52.7	86.4	82.6	55.4	81.3	75.4	50.5
1991	85.8	76.3	50.9	87.2	79.3	50.2	84.7	73.9	51.7
1992	83.4	75.0	47.8	83.7	75.8	44.1	83.2	74.5	50.3
1993	84.6	75.1	43.7	86.9	79.6	47.4	82.8	71.4	40.7

* Includes those with a job but not at work during the survey week.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 51-5 Percentage of 16- to 24-year-old part-time college students who were employed in October, by family income and hours worked per week: 1970–93

October	All students			Low[1]			Middle[1]			High[1]		
	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours
1970	82.5	76.2	60.4	(3)	(3)	(3)	80.1	75.7	61.7	85.7	76.0	53.9
1971	83.4	75.0	51.7	(3)	(3)	(3)	83.6	77.6	54.1	84.7	72.6	48.8
1972	83.1	76.1	53.1	72.2	62.9	38.1	83.7	78.2	55.5	86.4	77.0	53.7
1973	85.3	76.8	52.5	82.1	64.1	39.7	86.4	79.3	55.3	83.9	75.6	50.4
1974	84.4	77.2	61.0	—	—	—	—	—	—	—	—	—
1975	80.8	72.1	52.6	67.4	51.9	28.7	82.6	75.9	58.7	81.9	71.0	48.3
1976	84.6	76.1	53.0	85.1	77.6	47.0	86.1	77.0	57.5	81.7	74.3	46.7
1977	83.4	75.3	53.1	67.8	62.0	35.5	84.7	75.9	56.1	85.6	78.3	52.6
1978	86.1	76.6	53.9	74.2	65.2	42.4	87.2	78.0	54.8	87.6	77.9	56.6
1979	86.9	78.8	56.6	76.6	60.3	46.1	87.9	81.0	60.0	89.2	82.0	53.8
1980	85.2	75.7	53.0	69.2	57.7	32.7	86.2	78.3	54.3	87.4	75.3	55.9
1981	85.7	76.0	51.4	67.5	60.7	37.6	85.2	76.6	54.6	92.9	79.9	48.9
1982	81.1	69.7	48.1	65.7	58.3	34.3	80.7	70.3	50.2	85.5	71.3	47.6
1983	81.7	74.8	48.1	64.5	57.2	31.9	80.6	74.9	50.9	88.6	80.1	48.8
1984	84.9	77.7	55.2	69.5	60.3	41.8	85.4	80.3	57.1	89.4	79.2	56.5
1985	85.9	79.0	52.2	72.7	61.2	36.7	87.8	81.8	58.0	86.9	80.4	46.6
1986	87.2	78.0	54.4	70.4	57.0	35.9	88.5	78.6	54.8	91.0	85.1	60.8
1987	85.4	77.4	49.5	74.5	65.2	43.5	87.1	79.2	51.2	87.0	78.8	48.8
1988	88.3	81.6	54.2	73.0	66.4	34.3	87.4	80.7	57.9	94.7	88.0	54.0
1989	87.2	80.8	55.4	67.1	53.0	28.9	88.7	82.8	59.9	92.0	87.1	57.1
1990	83.7	78.7	52.7	81.8	71.6	36.6	81.8	77.6	54.1	89.9	85.5	58.0
1991	85.8	76.3	50.9	74.5	66.4	46.3	87.0	77.0	51.8	88.9	79.4	51.0
1992	83.4	75.0	47.8	77.4	67.4	37.4	84.7	75.8	50.8	83.9	76.8	46.9
1993	84.6	75.1	43.7	67.9	57.6	36.4	85.6	75.7	44.1	91.4	82.9	46.6

— Not available.

[1] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent of incomes in-between.

[2] Includes those with a job but not at work during the survey week

[3] Too few sample observations for a reliable estimate.

NOTE: For college students who are under 25 years old and not married, the family income is presumed to be that of the parental family; for married students, it is presumed to be that of the individual and his/her spouse.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 51-6 Percentage of 16- to 24-year-old high school students who were employed in October, by race/ethnicity and hours worked per week: 1970–93

	All students			White			Black			Hispanic		
October	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours
1970	31.5	11.6	2.8	34.0	12.7	2.9	15.6	4.5	2.0	—	—	—
1971	30.4	11.2	2.2	33.5	12.3	2.2	13.9	5.7	2.1	—	—	—
1972	32.5	13.6	2.9	37.2	15.5	3.1	12.0	5.2	2.0	22.3	8.6	2.3
1973	36.1	15.4	3.3	41.0	17.5	3.5	13.8	5.7	1.6	25.7	10.0	3.7
1974	35.2	15.1	3.1	40.0	16.9	3.4	16.3	8.1	1.9	23.3	10.7	2.8
1975	32.9	13.0	2.7	37.9	15.0	3.0	12.9	4.7	1.0	21.2	10.1	3.2
1976	33.4	14.3	2.6	38.9	16.6	2.6	12.7	5.2	2.4	20.1	10.8	2.7
1977	35.8	15.7	3.2	41.7	18.1	3.6	12.5	5.7	1.6	24.8	14.1	4.6
1978	38.2	16.2	2.9	43.9	18.4	3.2	16.1	6.8	1.4	28.0	15.9	3.1
1979	38.0	16.2	2.7	44.4	19.0	2.9	14.1	5.0	1.3	22.0	11.1	3.4
1980	35.1	13.3	2.3	40.7	15.2	2.1	13.7	5.7	1.9	24.5	11.6	4.9
1981	32.5	12.0	2.1	38.8	13.9	2.4	11.0	4.8	1.1	23.0	11.3	2.1
1982	29.5	9.7	1.6	35.9	11.8	2.0	8.9	2.4	0.1	15.0	6.2	1.5
1983	28.7	9.8	1.5	35.1	11.7	1.6	6.8	2.4	0.2	20.4	11.2	3.2
1984	31.0	11.5	1.3	36.4	13.1	1.2	13.4	6.1	0.6	23.2	10.5	3.7
1985	31.3	11.9	1.2	37.7	14.2	1.6	14.5	5.2	0.4	16.9	7.8	0.4
1986	34.1	13.7	1.9	40.3	15.7	2.2	14.5	6.5	0.8	25.8	15.8	1.7
1987	34.6	13.4	1.6	40.9	15.4	1.6	17.6	8.3	1.2	22.4	10.5	2.6
1988	35.1	14.2	1.6	40.6	16.0	1.6	19.3	8.2	1.1	23.2	10.3	2.8
1989	37.6	14.8	1.9	43.3	16.4	1.6	21.1	8.0	1.2	27.9	16.9	5.3
1990	32.1	11.9	2.0	38.0	13.6	1.8	16.7	5.0	1.0	24.6	13.2	4.5
1991	31.1	11.0	1.2	38.5	13.2	1.5	13.1	4.7	0.2	18.7	9.4	1.5
1992	29.6	10.7	1.2	36.1	12.7	1.2	13.7	5.1	0.4	18.9	9.8	2.2
1993	30.5	11.4	1.4	37.7	13.1	1.7	13.0	5.9	0.8	20.6	10.5	1.3

— Not available.

* Includes those with a job but not at work during the survey week.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 51-7 Percentage of 16- to 24-year-old high school students who were employed in October, by sex and hours worked per week: 1970–93

	All students			Male			Female		
October	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours	Total*	20 or more hours	35 or more hours
1970	31.5	11.6	2.8	34.6	15.0	4.0	28.1	7.8	1.5
1971	30.4	11.2	2.2	33.9	14.9	3.1	26.7	7.2	1.2
1972	32.5	13.6	2.9	36.0	16.9	4.2	28.6	9.9	1.5
1973	36.1	15.4	3.3	39.3	19.5	4.9	32.5	10.8	1.5
1974	35.2	15.1	3.1	38.1	18.5	4.3	32.0	11.4	1.7
1975	32.9	13.0	2.7	34.5	15.7	3.9	31.1	10.0	1.3
1976	33.4	14.3	2.6	35.3	17.3	3.7	31.3	10.9	1.3
1977	35.8	15.7	3.2	39.0	19.0	4.4	32.2	12.1	2.1
1978	38.2	16.2	2.9	39.8	19.2	3.9	36.5	12.9	1.8
1979	38.0	16.2	2.7	39.5	19.1	3.5	36.3	13.0	1.8
1980	35.1	13.3	2.3	36.0	14.7	3.0	34.0	11.9	1.4
1981	32.5	12.0	2.1	34.7	14.2	2.9	30.1	9.8	1.2
1982	29.5	9.7	1.6	29.3	10.6	2.1	29.8	8.6	0.9
1983	28.7	9.8	1.5	28.6	10.0	1.9	28.9	9.6	1.1
1984	31.0	11.5	1.3	31.3	12.6	2.0	30.6	10.3	0.4
1985	31.3	11.9	1.2	31.6	12.8	1.8	31.0	11.0	0.6
1986	34.1	13.7	1.9	33.2	14.0	2.6	35.2	13.4	1.2
1987	34.6	13.4	1.6	33.5	15.1	2.1	35.9	11.5	1.0
1988	35.1	14.2	1.6	34.7	16.7	2.3	35.5	11.3	0.9
1989	37.6	14.8	1.9	36.8	16.4	2.8	38.4	13.0	0.9
1990	32.1	11.9	2.0	32.7	13.2	2.4	31.4	10.4	1.6
1991	31.1	11.0	1.2	30.2	11.4	1.3	32.1	10.5	1.1
1992	29.6	10.7	1.2	31.1	11.9	1.5	27.9	9.4	0.8
1993	30.5	11.4	1.4	29.5	12.0	1.6	31.8	10.8	1.2

* Includes those with a job but not at work during the survey week.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 51-8 Percentage of 16- to 24-year-old high school students who were employed in October, by family income and hours worked per week: 1970–93

	All students			Low[1]			Middle[1]			High[1]		
October	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours	Total[2]	20 or more hours	35 or more hours
1970	31.5	11.6	2.8	21.7	7.3	2.8	31.0	12.4	3.1	35.7	11.3	2.0
1971	30.4	11.2	2.2	22.4	8.8	3.1	30.1	11.6	2.3	33.6	11.1	1.6
1972	32.5	13.6	2.9	19.3	9.0	3.1	31.4	13.9	3.1	39.1	14.4	2.4
1973	36.1	15.4	3.3	18.9	9.6	3.6	35.6	15.2	3.4	42.0	17.4	2.9
1974	35.2	15.1	3.1	—	—	—	—	—	—	—	—	—
1975	32.9	13.0	2.7	18.5	7.4	2.4	31.3	13.2	3.2	40.4	14.4	1.9
1976	33.4	14.3	2.6	20.8	11.1	3.7	31.7	13.4	2.7	40.1	16.8	2.0
1977	35.8	15.7	3.2	17.1	9.8	4.3	33.5	14.6	2.9	45.2	19.5	3.5
1978	38.2	16.2	2.9	19.6	9.4	3.3	37.5	16.4	3.0	44.8	17.7	2.6
1979	38.0	16.2	2.7	21.0	10.8	2.9	36.6	15.9	3.1	46.2	18.5	1.9
1980	35.1	13.3	2.3	19.3	8.2	1.8	34.3	13.7	2.8	42.0	14.5	1.5
1981	32.5	12.0	2.1	15.8	5.9	1.1	31.3	12.1	2.4	41.7	14.5	2.1
1982	29.5	9.7	1.6	14.6	4.7	1.8	28.2	10.3	1.6	38.6	10.7	1.5
1983	28.7	9.8	1.5	11.2	4.1	1.2	26.7	10.1	1.7	40.9	12.0	1.3
1984	31.0	11.5	1.3	15.9	7.3	1.2	30.0	11.3	1.2	40.3	13.9	1.5
1985	31.3	11.9	1.2	13.6	5.5	1.5	30.6	11.9	1.2	41.0	15.2	1.2
1986	34.1	13.7	1.9	18.2	10.3	1.9	33.6	13.1	2.0	42.7	16.6	1.7
1987	34.6	13.4	1.6	20.2	10.1	2.2	35.0	14.0	2.0	40.8	13.9	0.8
1988	35.1	14.2	1.6	20.3	9.9	2.4	35.3	14.7	1.9	41.8	15.2	0.8
1989	37.6	14.8	1.9	22.6	10.0	2.0	38.5	15.8	2.3	43.5	15.3	1.1
1990	32.1	11.9	2.0	21.7	9.5	2.6	32.6	12.6	2.1	36.8	11.6	1.5
1991	31.1	11.0	1.2	15.9	8.6	1.6	33.1	12.1	1.3	35.2	10.0	0.7
1992	29.6	10.7	1.2	13.8	5.0	0.9	30.5	11.6	1.3	36.2	11.9	1.1
1993	30.5	11.4	1.4	15.2	7.0	2.3	31.5	12.4	1.3	36.8	11.8	1.3

— Not available.

[1] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent of incomes in-between.

[2] Includes those with a job but not at work during the survey week.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 52-1 National index of public effort to fund elementary and secondary education (public school revenues per student in relation to per capita personal income): Selected school years ending 1930–93

School year ending	National index	Public education revenues[1] (billions)	Total elementary/ secondary enrollment (millions)	Public education revenues per pupil[1]	Total personal income[1,2] (billions)	Total population[3] (millions)	Per capita personal income[1,2]
1930	10.6	$18.1	28.3	$639	$733.4	121.9	$6,017
1940	14.6	24.0	28.0	856	769.3	131.0	5,871
1950	13.9	34.1	28.5	1,196	1,286.5	149.2	8,623
1960	16.2	74.5	40.9	1,823	1,998.4	177.8	11,238
1966	18.2	117.9	48.5	2,433	2,604.1	194.3	13,402
1968	19.3	139.2	49.9	2,790	2,876.1	198.7	14,474
1970	20.0	158.2	51.1	3,095	3,130.0	202.7	15,443
1971	20.9	166.3	51.3	3,243	3,176.3	205.1	15,490
1972	22.3	180.3	51.3	3,516	3,274.6	207.7	15,769
1973	21.5	180.7	50.7	3,560	3,479.6	209.9	16,578
1974	21.2	185.3	50.4	3,675	3,672.2	211.9	17,329
1975	21.7	184.7	50.1	3,689	3,628.7	213.9	16,968
1976	22.9	190.5	49.8	3,827	3,604.9	216.0	16,691
1977	22.2	190.5	49.5	3,849	3,771.5	218.0	17,298
1978	22.2	193.0	48.7	3,961	3,920.8	220.2	17,802
1979	21.7	190.6	47.6	4,002	4,112.8	222.6	18,477
1980	21.5	185.2	46.6	3,970	4,157.2	225.1	18,472
1981	21.9	181.5	46.2	3,924	4,079.5	227.7	17,914
1982	21.2	173.8	45.5	3,817	4,136.9	230.0	17,989
1983	22.1	177.7	45.2	3,933	4,138.1	232.2	17,822
1984	22.5	183.8	45.0	4,087	4,265.0	234.3	18,203
1985	22.5	192.6	44.9	4,290	4,506.4	236.3	19,067
1986	23.1	203.4	45.0	4,522	4,662.8	238.5	19,553
1987	23.2	211.5	45.2	4,679	4,861.1	240.6	20,203
1988	23.4	217.2	45.5	4,775	4,965.6	242.8	20,451
1989	24.8	235.1	45.4	5,177	5,114.8	245.0	20,875
1990	25.0	242.8	45.9	5,290	5,243.6	247.3	21,200
1991	25.1	247.5	46.4	5,328	5,308.4	249.9	21,242
1992	25.5	251.8	47.2	5,329	5,285.4	252.7	20,918
1993	25.3	258.8	[4]48.1	5,379	5,441.9	255.5	21,302

[1] In constant 1994 dollars, using the CPI adjusted to a school year basis.

[2] For the calendar year in which the school year began.

[3] As of July 1, the year in which the school year began.

[4] Preliminary data.

NOTE: Public education revenue at the elementary and secondary level are revenues at public schools. Enrollment is in all institutions, public and private.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 3, 37, 38, and 157 (based on Common Core of Data).

Table 52-2 National index of public effort to fund higher education (public revenues per student in relation to per capita personal income): Selected school years ending 1930–92

School year ending	National index[1]	Public higher education revenues[1,2] (billions)	Total higher education enrollment (millions)	Public higher education revenues per student[1,2]	Total personal income[2,3] (billions)	Total population[4] (millions)	Per capita personal income[2,3]
1930	22.5	$1.5	1.1	$1,352	$733.4	121.9	$6,017
1940	26.0	2.3	1.5	1,524	769.3	131.0	5,871
1950	32.0	6.8	2.4	2,762	1,286.5	149.2	8,623
1960	31.6	12.9	3.6	3,557	1,998.4	177.8	11,238
1966	33.9	26.9	5.9	4,545	2,604.1	194.3	13,402
1968	32.2	32.2	6.9	4,660	2,876.1	198.7	14,474
1970	30.9	38.1	8.0	4,765	3,130.0	202.7	15,443
1971	30.3	40.2	8.6	4,688	3,176.3	205.1	15,490
1972	30.1	42.5	8.9	4,744	3,274.6	207.7	15,769
1973	29.6	45.3	9.2	4,912	3,479.6	209.9	16,578
1974	28.0	46.5	9.6	4,847	3,672.2	211.9	17,329
1975	28.5	49.5	10.2	4,841	3,628.7	213.9	16,968
1976	27.7	51.6	11.2	4,615	3,604.9	216.0	16,691
1977	27.4	52.2	11.0	4,740	3,771.5	218.0	17,298
1978	26.7	53.6	11.3	4,745	3,920.8	220.2	17,802
1979	25.8	53.7	11.3	4,768	4,112.8	222.6	18,477
1980	24.8	53.0	11.6	4,583	4,157.2	225.1	18,472
1981	24.0	52.0	12.1	4,302	4,079.5	227.7	17,914
1982	22.7	50.6	12.4	4,092	4,136.9	230.0	17,989
1983	22.7	50.3	12.4	4,049	4,138.1	232.2	17,822
1984	22.9	52.0	12.5	4,174	4,265.0	234.3	18,203
1985	23.8	55.5	12.2	4,537	4,506.4	236.3	19,067
1986	24.4	58.5	12.2	4,780	4,662.8	238.5	19,553
1987	23.9	60.5	12.5	4,837	4,861.1	240.6	20,203
1988	23.7	62.0	12.8	4,856	4,965.6	242.8	20,451
1989	23.5	64.0	13.1	4,899	5,114.8	245.0	20,875
1990	22.8	65.5	13.5	4,835	[1]5,243.6	247.3	[1]21,200
1991	22.0	64.5	13.8	4,667	[1]5,308.4	249.9	[1]21,242
1992	21.8	65.4	14.4	4,556	5,285.4	252.7	20,918

[1] The higher education revenues differ from previously published figures as they are now being adjusted by the school year.

[2] In constant 1994 dollars, using the CPI adjusted to a school year basis.

[3] For the calendar year in which the school year began.

[4] As of July 1, the year in which the school year began.

NOTE: Public higher education revenues are the portion of educational and general revenue from federal, state, and local sources at both public and private institutions. Pell grants and other direct student aid are excluded from this time series, understating public higher education revenues between 2 and 4 percent. Enrollment is in all institutions, public and private.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 3, 37, 38, and 316 (based on Common Core of Data and IPEDS/HEGIS surveys of financial statistics and fall enrollment); *120 Years of American Education: A Statistical Portrait, 1993*, tables 24 and 33 (based on Common Core of Data and IPEDS/HEGIS surveys of Financial Statistics and Fall Enrollment).

Table 52-3 Public elementary and secondary school revenues as a percentage of Gross Domestic Product (GDP) and revenue sources: Selected school years ending 1920–93

School year ending	Public elementary/secondary school revenues as a percentage of GDP[1]	Revenue source (Percent of total public school revenues)		
		Local[2]	State	Federal
1920	—	83.2	16.5	0.3
1930	2.0	82.7	16.9	0.4
1940	2.5	68.0	30.3	1.8
1942	1.9	67.1	31.4	1.4
1944	1.4	65.6	33.0	1.4
1946	1.4	63.9	34.7	1.4
1948	1.8	58.3	38.9	2.8
1950	2.1	57.3	39.8	2.9
1952	1.9	57.9	38.6	3.5
1954	2.1	58.1	37.4	4.5
1956	2.4	55.9	39.5	4.6
1958	2.7	56.6	39.4	4.0
1960	3.0	56.5	39.1	4.4
1962	3.3	56.9	38.7	4.3
1964	3.4	56.3	39.3	4.4
1966	3.6	53.0	39.1	7.9
1968	3.9	52.7	38.5	8.8
1970	4.2	52.1	39.9	8.0
1971	4.4	52.5	39.1	8.4
1972	4.6	52.8	38.3	8.9
1973	4.3	51.3	40.0	8.7
1974	4.3	50.1	41.4	8.5
1975	4.4	48.8	42.2	9.0
1976	4.5	46.5	44.6	8.9
1977	4.3	47.8	43.4	8.8
1978	4.1	47.6	43.0	9.4
1979	3.9	44.6	45.6	9.8
1980	3.9	43.4	46.8	9.8
1981	3.9	43.4	47.4	9.2
1982	3.6	45.0	47.6	7.4
1983	3.7	45.0	47.9	7.1
1984	3.7	45.4	47.8	6.8
1985	3.6	44.4	48.9	6.6
1986	3.7	43.9	49.4	6.7
1987	3.7	43.9	49.7	6.4
1988	3.7	44.1	49.5	6.3
1989	3.9	46.0	47.8	6.2
1990	4.0	46.6	47.3	6.1
1991[3]	4.0	46.7	47.2	6.2
1992	4.1	47.0	46.4	6.6
1993	4.1	47.4	45.6	6.9

— Not available.

[1] Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad for the calendar year in which the school year began.

[2] Includes intermediate sources and a relatively small amount from nongovernmental sources (gifts and tuition and transportation fees from patrons). Nongovernmental sources accounted for 0.4 percent of total revenues in school year 1967–68.

[3] Revised from previously published figures.

NOTE: Beginning in school year 1980–81, revenues for State Education Agencies are excluded. Data for school years 1988–93 reflect new survey collection procedures and may not be entirely comparable to figures for earlier years.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 31 and 157 (based on Common Core of Data); Executive Office of the President, *Economic Report to the President*, February 1994, table B-114.

Table 52-4 Higher education revenues as a percentage of GDP and revenue sources: Selected school years ending 1930–92

School year ending	Higher education revenues as a percentage of GDP[1]	Revenue source (Percent of total higher education revenues from public sources)		
		Local	State	Federal[2]
1930	0.2	—	88.0	12.0
1940	0.2	11.4	70.5	18.1
1942	0.2	10.7	66.1	23.1
1944	0.3	5.2	34.4	60.4
1946	0.2	6.8	49.7	43.5
1948	0.4	5.1	38.0	56.8
1950	0.4	5.7	45.7	48.7
1952	0.3	6.3	53.9	39.8
1954	0.3	7.1	59.4	33.5
1956	0.4	7.2	59.5	33.2
1958	0.4	6.5	57.6	35.8
1960	0.5	5.9	53.6	40.5
1962	0.6	5.6	49.1	45.3
1964	0.7	5.3	46.8	47.9
1966	0.8	5.2	50.0	44.7
1968	0.9	6.8	56.7	36.5
1970	1.0	8.0	59.6	32.4
1971	1.1	8.4	60.4	31.2
1972	1.1	8.4	60.5	31.1
1973	1.1	8.8	60.6	30.6
1974	1.1	8.6	62.8	28.6
1975	1.2	8.2	62.9	28.9
1976	[3]1.2	8.4	63.6	28.1
1977	1.2	7.9	64.4	27.8
1978	[3]1.1	7.7	65.2	27.0
1979	1.1	6.3	66.0	27.6
1980	[3]1.1	5.7	66.3	28.0
1981	1.1	5.9	66.2	27.9
1982	1.1	6.0	68.1	25.9
1983	1.1	6.1	69.3	24.6
1984	1.0	6.1	69.2	24.6
1985	1.0	6.0	69.7	24.3
1986	1.1	5.9	69.7	24.4
1987	1.1	6.2	69.1	24.8
1988	1.1	6.2	69.3	24.5
1989	1.1	6.4	69.0	24.6
1990	1.1	6.5	68.5	25.0
1991	1.0	6.8	67.8	25.4
1992[4]	1.1	6.8	66.6	26.5

— Not available.

[1] Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad for the calendar year in which the school year began.

[2] Does not include revenues associated with major federally funded research and development centers (FFRDC).

[3] Revised from previously published figures.

[4] Preliminary data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 31 and 316 (based on IPEDS/HEGIS Financial Survey); Executive Office of the President, *Economic Report to the President*, February 1994, table B-114.

Note on calculation of national index of public effort to fund education

There are many indices of public investment in education available. Choosing the most appropriate measure has been an issue in international comparisons as well as national trends. The national index of public effort provides a measure of public investment in each student compared to available societal resources.

Public education revenues per student are the ratio of total public education revenues to public and private enrollment. Per capita income is the ratio of total personal income to total population. The index can be expressed algebraically, therefore, as a function of four variables:

$$\text{National effort index} = \frac{\text{Public education revenues per student}}{\text{Per capita income}} \times 100$$

or

$$\text{National effort index} = \frac{\text{Public education revenues} \;/\; \text{Total personal income}}{\text{Total enrollment} \;/\; \text{Total population}} \times 100$$

Revenue data from elementary/secondary and higher education are based on different accounting systems and are not entirely comparable. For example, elementary and secondary public revenues represent additions to assets (cash) from taxes, appropriation, and other funds, which do not incur an obligation that must be met at some future date (loans) in all public schools. These include revenues that are spent on construction of buildings and other investments in the physical plant. Because of the difficulty in constructing a comparable time series, public funds going to private schools (for Head Start, disabled children, etc.) have been excluded. For higher education, educational and general public revenues are those available from public sources at both public and private institutions for the *regular or customary activities* of an institution that are part of, contributory to, or necessary to its instructional or research program. These include salaries and travel of faculty and administrative or other employees; purchase of supplies or materials for *current* use in classrooms, libraries, laboratories, or offices; and operation and maintenance of the educational plant. In contrast to elementary/secondary public revenues, higher education public revenues, as defined in this indicator, do not include public funds that would be used for expansion of the physical plant. As a result, the reader should focus on the changes over time in the elementary/secondary and the higher education's measures rather than on comparisons across levels.

Enrollment is in all institutions, regardless of control. No adjustments were made for part-time enrollment.

Total education revenues are in 1994 dollars, based on the Consumer Price Index (CPI), prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school-year basis. Personal income is in constant 1994 dollars.

Table 53-1 Total revenue per student adjusted for cost-of-living, educational needs of children, and revenue shares from local, state, and federal sources, by district characteristics: 1989–90

District characteristics	Percentage of enrollment[1]	Actual dollars	Cost-of-living adjusted dollars[2]	Cost and need adjusted dollars[3]	Revenue share[1]		
					Percent local	Percent state	Percent federal
Median value of owner-occupied housing							
Less than $40,000	10.8	$4,408	$4,522	$3,864	33.5	57.1	9.4
$40,000-54,999	20.2	4,455	4,509	3,905	38.8	53.7	7.5
$55,000-84,999	32.5	4,691	4,649	4,061	46.0	48.2	5.8
$85,000 or more	36.5	6,060	5,200	4,537	49.9	45.8	4.3
Median household income							
Less than $20,000	10.1	4,297	4,411	3,712	28.2	60.1	11.7
$20,000-24,999	21.3	4,622	4,638	3,999	38.7	53.7	7.6
$25,000-29,999	25.4	5,107	4,839	4,158	44.0	49.6	6.4
$30,000-34,999	15.9	5,015	4,677	4,092	44.1	50.9	4.9
$35,000 or more	27.2	5,862	5,137	4,576	56.3	40.9	2.8
Percentage of students receiving special education services							
10.0 or more	9.3	5,389	4,691	4,227	46.0	47.7	6.3
3.1 to 9.9	69.0	4,914	4,835	3,964	42.3	51.6	6.0
Less than 3.0	21.6	5,003	4,878	4,640	47.4	47.4	5.1
Percentage of school-age children in poverty							
25.0 and above	26.4	5,064	4,702	3,952	27.1	60.1	12.8
15.0 to 24.9	26.3	4,681	4,592	3,955	37.8	53.9	8.3
5.0 to 14.9	36.0	5,048	4,788	4,229	44.9	50.3	4.8
Less than 5.0	11.3	6,432	5,624	5,098	64.7	33.2	2.1
Percentage of children with limited English proficiency							
5.0 or more	21.6	5,433	4,691	3,956	38.0	54.3	7.7
0.1 to 4.9	69.0	5,038	4,835	4,238	46.6	47.9	5.5
0.0	9.3	4,913	4,878	4,292	45.2	49.0	5.8
Percentage of children who are minority							
50.0 or more	26.1	5,378	4,778	4,025	35.4	55.2	9.4
20.0 to 49.9	25.6	4,981	4,750	4,113	43.8	50.1	6.1
5.0 to 19.9	26.4	5,097	4,845	4,289	50.7	45.2	4.1
Less than 5.0	21.9	4,966	4,867	4,321	49.2	46.7	4.1

[1] Details may not add to 100 percent due to rounding.

[2] The methodology to adjust for cost-of-living involved extrapolating cost-of-living (COL) indices in a number of large cities to metropolitan and nonmetropolitan areas of all states based on the relationship between COL and per capita personal income, housing value, and percentage change in the population. For more information, see supplemental note to this indicator, pages D-10 to D-13 of the report cited below, and the references cited therein.

[3] The methodology to adjust for educational needs of children involved increasing the effective number of children who need to be served by multiplying the number of children receiving special education services by 2.3, the number of limited-English-proficient students by 1.2, and the number of children living in poverty by 1.2. For more information, see the supplemental note to this indicator, pages D-14 to D-15 of the reported cited below, and the references cited therein.

NOTE: See the supplemental note to this indicator for further discussion of issues in the measurement of educational resource disparity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Disparities in Public School District Spending: 1989-90*, tables A1.1, A1.2, A2.1, and A2.2.

Special considerations used in the analysis of public school district funding

This indicator is drawn from the U.S. Department of Education, National Center for Education Statistics, *Disparities in Public School District Spending 1989–90* (1995). This note is condensed from appendix D of that report. More details appear in the report, including the methodology used in imputation of missing values. The report and this indicator utilize the entire population of school districts. Standard errors are not presented since sampling variation is nonexistent when reporting data from the population of all districts.

Note on Expenditure Differences

Revenue is only one side of the school district funding equation. As noted below, expenditures also vary across different types of students, such as special education, "Chapter 1," and limited-English proficient (LEP) students. Schools also may have differing costs of transportation and maintenance. Adjusting for these costs may allow for more precise measurement of the differences of resource availability across districts.

The report *Disparities in Public School District Spending 1989–90* (1995) does make some of these adjustments. The report also uses multivariate regression methods to account for different district characteristics. In general, the expenditure analysis shows that spending on students is more equitable than the unadjusted numbers show. The analysis also shows that poorer districts are spending less on maintenance, which may point to the emergence of physical facility problems in the future.

Note on Adjustments for Cost-of-Living

When educational expenditures per student are reported, comparable power to purchase education goods and services is assumed. Because of locational cost differentials, however, identical expenditures may not have the same purchasing power in different districts. To allow meaningful comparisons of revenues and expenditures per pupil across districts, it may be important to convert these nominal amounts (actual dollars) into amounts that reflect real purchasing power (cost-of-living adjusted dollars).

Although the concept of adjusting for cost differentials to make comparisons in expenditures and revenues across regions is generally accepted, the most appropriate set of adjustments to be used for these purposes has yet to be fully agreed upon or developed. One issue associated with the use of the indices included in this analysis is the relative lack of detail. For the majority of the states, only two indices were provided, metropolitan and nonmetropolitan areas. This level of aggregation masks a great deal of district-level variation and would seem to be of especially questionable use in state-level analyses. However, more detail was provided for the most populous states. For example, seven indices were calculated for California with unique indices provided for each of the five large cities (population greater than 1.5 million persons). The present analysis assumes this level of detail to be sufficient for the full universe of districts across the nation.

The most appropriate form of cost adjustment to be used with these fiscal data would be based on measures of variation in the cost-of-*education* resources in different locations throughout the country. Although work on the development of such cost-of-education differentials has been investigated by NCES, this type of cost-adjustment factor is not available for use at the current time. Lacking cost adjustments based on differences in the cost-of-*education*, a second option is to base the cost factors to be used in this indicator on differences in cost-of-*living* within states and across the nation. Although less preferable than cost-of-education measures, it has been shown that variations in the cost-of-living are highly correlated with differences in the cost-of-education (Chambers 1981; Chambers et al. 1993).

McMahon and Chang (1991) have produced a set of unique cost-of-living indices for each major metropolitan area that show urban/rural differentials across all of the states. These indices were derived from a regression analysis of the relationship between the cost-of-living and per capita personal income, housing value, and percentage change in population. Thus, in the absence of cost-of-education measures, the

McMahon and Chang measures were used to produce alternative sets of revenue values to accompany the actual values. These cost-of-living indices were attached to individual districts through the use of the metropolitan statistical area and metropolitan status codes for school districts from the NCES 1989–90 Common Core of Data (CCD) district file.

Note on Other Adjustments

The cost-of-living adjustments may not fully account for differences in resource availability between districts. For instance, school districts receive additional state and federal funds based on the number of students eligible for compensatory education programs. They may also receive additional revenue for LEP and special education students. Detailed budgetary data are not available that would allow a precise estimation of the additional revenue obtained by these programs. The report from which this indicator was drawn makes some assumptions about the amounts of revenue districts receive for special education, limited-English-proficient, and LEP and compensatory education students, and makes further assumptions that these revenues represent the best estimate for how much more expensive such students are to educate. In the case of special education students, the additional cost of educating these students was based on a study of expenditures. When these assumptions are made, actual dollar revenues per student can be adjusted for these varying degrees of student "need." The need-adjusted revenues per student exhibit wider differences than are exhibited by the actual dollar revenue differences for each category of district characteristics shown, except for proportion of minority enrollment. The need-adjusted revenues per student across districts with varying proportions of minority students are more equal than shown in the actual dollar amounts. Readers who are interested in a fuller discussion of these issues are encouraged to refer to the report cited above.

SOURCES:

J.G. Chambers. "Cost and Price Level Adjustments to State Aid for Education: A Theoretical and Empirical Review." In *Perspectives in State School Support Programs-Second Annual Yearbook of the American Educational Finance Association*. K. Jordan, ed. Ballinger Publishing Company, 1981.

J.G. Chambers, T. Parrish, M. Goertz, C. Marder, and C. Padilla. *Translating Dollars into Services: Chapter 1 Resources in the Context of State and Local Resources for Education*. Prepared for the U.S. Department of Education. Palo Alto, CA: American Institutes for Research, April 1993.

W.W. McMahon and S. Chang. *Geographic Cost of Living Differences: Interstate and Intrastate, Update 1991*. MacArthur/Spencer Series Number 20. Normal, IL: Center for the Study of Educational Finance, Illinois State University, April 1991.

Table 54-1 Current public expenditures for education, by school level and country: School year 1991–92

				Per student[1]					
	As a percent of GDP[2]			Constant 1991-92 U.S. dollars[3]			As a fraction of GDP per capita[2]		
Country	Preprimary	1st-12th	Higher education	Preprimary	1st-12th	Higher education	Preprimary	1st-12th	Higher education
Australia[4]	—	2.7	1.6	—	$2,532	$6,001	—	15.0	35.5
Austria	0.3	3.3	0.9	$2,400	4,107	4,996	13.3	22.8	27.7
Belgium	0.4	3.3	0.9	1,659	3,438	5,889	9.2	19.0	32.6
Canada	—	4.3	2.4	—	4,935	9,829	—	24.8	49.3
Czech Republic	0.5	2.8	0.6	1,165	1,137	3,153	16.3	15.9	44.0
Denmark[5]	0.9	3.9	1.1	5,796	4,475	6,271	32.9	25.4	35.6
Finland	0.7	4.9	2.0	5,725	4,237	8,285	39.5	29.3	57.2
France	0.6	3.4	0.8	2,337	3,630	4,676	12.6	19.6	25.3
Former West Germany[5,6]	0.2	2.4	0.8	1,619	3,616	5,749	8.0	17.8	28.3
Hungary	0.8	4.2	1.4	1,530	1,728	8,693	22.2	25.1	126.2
Ireland	0.5	3.6	1.1	1,633	2,083	5,616	12.8	16.3	44.0
Italy	0.4	3.3	0.6	2,259	4,036	3,888	13.0	23.2	22.4
Japan	0.1	2.3	0.3	800	2,707	2,358	4.0	13.7	11.9
Netherlands	0.3	3.2	1.7	2,232	3,192	9,983	13.2	18.8	58.9
New Zealand[7]	0.2	3.2	1.4	1,622	2,263	6,081	11.5	16.0	43.0
Norway[5]	0.7	4.8	1.2	4,206	5,262	6,690	23.8	29.8	37.9
Portugal[8,9]	0.1	3.9	0.8	643	1,992	4,638	6.6	20.4	47.6
Spain[10]	0.3	3.1	0.7	1,261	2,094	2,640	9.9	16.4	20.6
Sweden[7]	1.1	4.6	1.9	5,819	5,336	13,518	33.8	31.0	78.5
Switzerland[5,8]	0.2	3.2	0.8	1,629	4,838	9,674	7.3	21.7	43.4
United Kingdom[11]	0.1	3.8	1.0	1,819	3,365	9,154	11.2	20.6	56.2
United States	0.2	3.5	1.2	2,234 4,909	6,984	9.5	20.9	29.8	

— Not available.

[1] Enrollment is in all institutions, public and private, and is based on headcount estimates for preprimary through 12th grade. For higher education, it is full-time-equivalent enrollment.

[2] Gross domestic product is gross national product less net property income from abroad.

[3] Purchasing Power Parity Indices (PPPI) were used to convert other currencies to U.S. dollars. Because the fiscal year has a different starting date in different countries, within-country Consumer Price Indices (CPI) were used to adjust the PPPIs to account for inflation.

[4] Expenditures for higher education include expenditures for vocational secondary education, as it is taught in institutions of higher education, and are from 1991-92. Expenditures for pre-primary, 1st-12th grades, and private higher education are from 1990-91.

[5] Expenditure data for publicly-supported private schools include capital expenditures.

[6] Includes contributions to the pension funds of teachers who are civil servants.

[7] All expenditure figures include capital expenditures.

[8] Expenditure data include only net expenditures for ancillary services.

[9] Enrollment data from 1990-91.

[10] Public expenditure for education is underestimated because a large part of the pension costs are not included.

[11] Excludes expenditures on nursing and paramedical education.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, International Indicators Project, 1995.

Table 54-2 Current and capital public expenditures (in 1991–92 U.S. dollars) as a percentage of total education expenditures, by school level and country: School year 1991–92

Country	Preprimary			1st-12th			Higher education			Undistributed other	
	Total expenditure (millions)[1]	Percent current	Percent capital	Total expenditure (millions)[1]	Percent current	Percent capital	Total expenditure (millions)[1]	Percent current	Percent capital	Percent current	Percent capital
Australia[2]	$164	90.4	9.6	$9,822	81.1	18.9	$4,995	90.9	9.1	—	—
Austria	511	92.7	7.3	5,243	88.9	11.1	1,584	80.8	19.2	94.1	5.9
Belgium	744	99.2	0.8	5,992	99.6	0.4	1,660	99.0	1.0	95.8	4.2
Canada	—	—	—	25,407	92.0	8.0	12,964	99.4	0.6	—	—
Czech Republic	403	94.2	5.8	2,298	89.5	10.5	477	88.6	11.4	94.8	5.2
Denmark[3]	838	98.8	1.2	3,732	—	—	1,183	85.5	14.5	97.4	2.6
Finland	507	100.0	0.0	3,715	95.7	4.3	1,517	94.8	5.2	97.3	2.7
France	6,272	97.1	2.9	40,117	90.4	9.6	9,659	90.8	9.2	97.3	2.7
Former West Germany[3,4]	3,406	—	—	33,329	—	—	12,118	87.8	12.2	97.2	2.8
Hungary	635	94.9	5.1	3,387	88.3	11.7	1,118	90.7	9.3	89.5	10.5
Ireland	214	97.1	2.9	1,680	96.8	3.2	561	89.4	10.6	97.5	2.5
Italy	3,679	96.5	3.5	34,689	96.7	3.3	8,513	70.7	29.3	90.2	9.8
Japan	1,864	89.5	10.5	68,035	83.7	16.3	8,134	86.3	13.7	92.4	7.6
Netherlands	845	97.9	2.1	8,387	98.9	1.1	4,544	93.8	6.2	99.4	0.6
New Zealand[5]	94	—	—	1,550	—	—	690	—	—	—	—
Norway[3]	600	92.5	7.5	3,806	—	—	1,087	84.9	15.1	98.1	1.9
Portugal[6,7]	120	91.4	8.6	3,873	96.5	3.5	970	82.5	17.5	87.5	12.5
Spain[8]	1,404	92.5	7.5	16,684	92.4	7.6	4,217	81.8	18.2	95.4	4.6
Sweden[5]	1,572	—	—	6,827	—	—	2,801	—	—	—	—
Switzerland[3,6]	256	92.0	8.0	5,160	93.7	6.3	1,534	81.5	18.5	62.7	37.3
United Kingdom[9]	790	96.1	3.9	37,446	94.9	5.1	9,995	94.6	5.4	—	—
United States	11,485	92.6	7.4	227,502	91.0	9.0	79,322	91.0	9.0	—	—

— Not available or not applicable.

[1] Purchasing Power Parity Indices (PPPI) were used of convert·other currencies to U.S. dollars. Because the fiscal year has a different starting date in different countries, within-country Consumer Price Indices (CPI) were used to adjust the PPPIs to account for inflation.

[2] Expenditures for higher education include expenditures for vocational secondary education, as it is taught in institutions of higher education, and are from 1991-92. Expenditures for pre-primary, 1st-12th grades, and private higher education are from 1990-91.

[3] Expenditure data for publicly-supported private schools include capital expenditures.

[4] Includes contributions to the pension funds of teachers who are civil servants.

[5] All expenditure figures include capital expenditures.

[6] Expenditure data include only net expenditures for ancillary services.

[7] Enrollment data from 1990-91.

[8] Public expenditure for education is underestimated because a large part of the pension costs are not included.

[9] Excludes expenditures on nursing and paramedical education.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, International Indicators Project, 1995.

Table 54-3 Current public expenditures on education as a percentage of total public expenditures, by school level and country: School year 1991–92

Country	Current public expenditure for education[1,2] (millions)	Total public expenditure[2] (millions)	Current public expenditures on education as a percentage of total public expenditures[1]				
			Total	Pre-primary	1st-12th grades	Higher education	Undistributed/other
Australia[3]	$16,845	$153,068	11.0	0.1	6.9	3.9	0.0
Austria	101,309	1,042,240	9.7	0.7	6.4	1.8	0.9
Belgium	378,264	4,052,266	9.3	0.7	5.7	1.6	0.0
Canada	45,149	344,182	13.1	—	8.5	4.7	1.7
Czech Republic	35,481	253,100	14.0	1.6	8.8	1.8	0.2
Denmark[4]	51,505	518,443	9.9	1.5	6.4	1.8	1.1
Finland	38,824	284,523	13.6	1.2	8.1	3.3	0.5
France	353,491	3,632,750	9.7	1.1	6.6	1.6	0.5
Former West Germany[4,5]	98,870	1,350,340	7.3	0.5	4.9	1.7	0.3
Hungary	184,652	990,400	18.6	2.4	11.9	4.0	0.3
Ireland	1,567	—	—	—	—	—	—
Italy	70,461,305	805,947,000	8.7	0.7	6.2	1.1	0.7
Japan	13,909,340	146,174,000	9.5	0.2	7.2	0.9	1.2
Netherlands	30,495	328,690	9.3	0.6	5.5	2.8	0.4
New Zealand[6]	4,344	—	—	—	—	—	—
Norway[4,7]	50,288	387,906	13.0	1.3	8.7	2.2	0.7
Portugal[8,9]	574,449	—	—	—	—	—	—
Spain[10]	2,443,165	—	—	—	—	—	—
Sweden[6]	108,536	949,441	11.4	1.6	7.0	2.9	0.0
Switzerland[4,8]	16,395	117,630	13.9	0.4	9.1	2.4	2.0
United Kingdom[11]	28,021	251,533	11.1	0.2	8.7	2.3	0.0
United States	282,001	2,216,000	12.7	0.5	9.1	3.2	0.0

—Not available.

[1] Current expenditures exclude both capital expenditures and servicing of debt.

[2] National currency.

[3] Expenditures for higher education include expenditures for vocational secondary education, as it is taught in institutions of higher education, and are from 1991-92. Expenditures for pre-primary, 1st-12th grades, and private higher education are from 1990-91.

[4] Expenditure data for publicly-supported private schools include capital expenditures.

[5] Includes contributions to the pension funds of teachers who are civil servants.

[6] All expenditure figures include capital expenditures.

[7] Total public expenditure figure from 1990-91.

[8] Expenditure data include only net expenditures for ancillary services.

[9] Enrollment data from 1990-91.

[10] Public expenditures for education is underestimated because a large part of the pension costs are not included.

[11] Exclude expenditures on nursing and paramedical education.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, International Indicators Project, 1995.

Table 54-4 Distribution of current public expenditures on education for each school level, by country: School year 1991–92

Country	Total	Preprimary	1st–12th grades	Higher education	Undistributed/ other
Australia[1]	100.0	1.2	62.9	35.9	0.0
Austria	100.0	6.7	65.9	18.1	9.3
Belgium	100.0	7.6	61.1	16.8	14.5
Canada	100.0	—	64.5	35.5	0.0
Czech Republic	100.0	11.6	63.0	13.0	12.4
Denmark[2]	100.0	15.1	64.1	18.4	2.4
Finland	100.0	8.5	59.6	24.1	7.7
France	100.0	11.3	67.5	16.3	4.8
Former West Germany[2,3]	100.0	6.2	66.7	22.8	4.4
Hungary	100.0	12.9	63.8	21.6	1.7
Ireland	100.0	8.7	67.9	20.9	2.5
Italy	100.0	7.5	71.2	12.8	8.5
Japan	100.0	2.2	75.9	9.4	12.5
Netherlands	100.0	5.9	59.6	30.6	3.9
New Zealand[4]	100.0	3.3	55.0	24.5	17.2
Norway[2]	100.0	10.2	67.4	17.0	5.3
Portugal[5,6]	100.0	2.3	77.1	16.5	4.1
Spain[7]	100.0	6.3	74.3	16.6	2.9
Sweden[4]	100.0	14.0	61.0	25.0	0.0
Switzerland[2,5]	100.0	3.2	65.4	16.9	14.5
United Kingdom[8]	100.0	1.7	77.7	20.7	0.0
United States	100.0	3.7	71.4	24.9	0.0

— Not available.

[1] Expenditures for higher education include expenditures for vocational secondary education, as it is taught in institutions of higher education, and are from 1991-92. Expenditures for pre-primary, 1st-12th grades, and private higher education are from 1990-91.

[2] Expenditure data for publicly-supported private schools include capital expenditures.

[3] Includes contributions to the pension funds of teachers who are civil servants.

[4] All expenditure figures include capital expenditures.

[5] Expenditure data include only net expenditures for ancillary services.

[6] Enrollment data from 1990-91.

[7] Public expenditure for education is underestimated because a large part of the pension costs are not included.

[8] Excludes expenditures on nursing and paramedical education.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, International Indicators Project, 1995.

Table 54-5 Public current education expenditures (in national currency) and total enrollment, by school level and country: School year 1991–92

			Public current education expenditures (millions)				Enrollment in public and private schools[1]				
Country	Population (thousands)	GPD[2] (millions)	Pre-primary	1st–12th grades	Higher education	Undistributed/ other	Pre-primary	1st–12th grades	Higher education	PPPI[3]	CPI adjustment[3]
Australia[4]	17,292	$389,247	$198	$10,601	$6,046	0	—	3,145,004	756,711	1.33	1.000
Austria	7,884	2,035,606	6,782	66,796	18,336	9,395	197,186	1,135,061	256,096	14.33	1.000
Belgium	10,045	7,032,336	28,592	231,262	63,684	54,726	444,746	1,736,375	279,126	38.74	1.000
Canada	27,102	671,888	—	29,105	16,044	0	232,841	4,738,305	1,311,446	1.26	1.010
Czech Republic	10,313	803,300	4,130	22,365	4,602	4,385	325,791	1,807,488	134,142	10.88	1.000
Denmark[5]	5,171	853,981	7,766	32,996	9,486	1,257	142,907	786,444	161,331	9.38	1.000
Finland	5,042	475,674	3,300	23,155	9,374	2,995	88,492	838,902	173,702	6.51	1.000
France	57,372	6,987,221	40,087	238,580	57,689	17,135	2,606,949	9,988,080	1,875,128	6.58	1.000
Former West Germany[5,6]	64,846	2,794,200	6,092	65,907	22,523	4,348	1,777,152	8,604,854	1,849,926	2.12	1.000
Hungary	10,337	2,805,000	23,755	117,858	39,917	3,122	394,091	1,730,708	116,550	39.40	1.000
Ireland	3,547	29,609	136	1,064	328	39	127,335	780,914	89,306	0.65	1.000
Italy	57,900	1,504,323,000	5,312,203	50,186,751	8,996,996	5,965,355	1,572,699	8,314,141	1,547,474	1495.53	1.000
Japan	124,020	454,435,250	309,124	10,557,126	1,300,723	1,742,367	2,084,239	21,045,895	2,976,728	187.79	1.013
Netherlands	15,184	563,220	1,811	18,162	9,328	1,194	370,509	2,598,525	426,771	2.19	1.000
New Zealand[7]	3,415	74,301	145	2,387	1,063	748	58,238	685,230	113,506	1.54	1.000
Norway[5]	4,287	701,652	5,143	33,901	8,555	2,689	131,960	695,364	138,004	9.27	1.000
Portugal[8,9]	9,846	11,366,000	12,948	442,983	94,810	23,708	170,052	1,876,768	172,545	118.49	1.000
Spain[10]	39,085	58,852,000	152,867	1,814,693	405,941	69,664	1,030,083	7,366,351	1,306,813	117.67	1.000
Sweden[7]	8,646	1,443,581	15,236	66,153	27,147	0	270,193	1,279,414	207,237	9.87	1.018
Switzerland[5,8]	6,875	339,470	522	10,719	2,773	2,381	144,629	999,067	129,278	2.22	1.000
United Kingdom[11]	57,850	577,382	465	21,764	5,793	0	417,530	10,562,869	1,033,439	0.62	1.015
United States	254,149	5,803,800	10,343	201,466	70,192	0	4,758,875	42,185,699	10,329,380	0.99	1.014

— Not available.

[1] Enrollment is in all institutions, public and private, and is based on headcount estimates for preprimary through 12th grade. For higher education, it is full-time-equivalent enrollment.

[2] Gross domestic product is gross national product less net property income from abroad.

[3] Purchasing Power Parity Indices (PPPI) were used to convert other currencies to U.S. dollars. Because the fiscal year has a different starting date in different countries, within-country Consumer Price Indices (CPI) were used to adjust the PPPIs to account for inflation.

[4] Expenditures for higher education include expenditures for vocational secondary education, as it is taught in institutions of higher education, and are from 1991-92. Expenditures for pre-primary, 1st-12th grades, and private higher education are from 1990-91.

[5] Expenditure data for publicly-supported private schools include capital expenditures.

[6] Includes contributions to the pension funds of teachers who are civil servants.

[7] All expenditure figures include capital expenditures.

[8] Expenditure data include only net expenditures for ancillary services.

[9] Enrollment data from 1990–91.

[10] Public expenditure for education is underestimated because a large part of the pension costs are not included.

[11] Excludes expenditures on nursing and paramedical education.

SOURCE: Organization for Economic Co-operation and Development, Center for Educational Research and Innovation, International Indicators Project, 1995.

Note on international comparisons of current public education expenditures

The purpose of this indicator is to compare *public* support for education, based on Gross Domestic Product (GDP), population, and school enrollment, across the developed countries for which data are available.

Definitions

Public education expenditures include funds channeled to both public and private schools by federal, state, and local governments either directly or through students. This includes expenditures at public schools funded by public sources and subsidies to students at private schools from government agencies. *Private education expenditures* are expenditures financed by private sources—households, private nonprofit institutions, businesses, and corporations. For example, this includes expenditures supported by public and private school tuition and fees, and expenses for books and materials that must be purchased by students themselves.

Current expenditures are expenditures for educational goods and services whose life span should not in principle exceed the current year (salaries of personnel, school books and other teaching materials, scholarships, minor repairs and maintenance to school buildings, administration, etc.). Current expenditures exclude both capital expenditures (construction of buildings, major repairs, major items of equipment, vehicles) and the servicing of debt.

This indicator focuses on the portion of current education expenditures at both public and private schools funded by public sources.

Expenditures in the United States

Elementary and Secondary

For the United States, *current public expenditures for elementary and secondary education* include current expenditures in local public school districts funded by state and local taxes, federal programs administered by the U.S. Department of Education (ED), and federal programs operated outside of ED that are not administered by state or local education agencies, e.g., Head Start, Department of Defense Schools, and schools operated by the Bureau of Indian Affairs. Also included are federal expenditures to operate ED and other activities, such as research, statistics, assessment, and school improvement, and state expenditures to operate state departments of education and other direct state expenditures, including state schools for the deaf and blind and reform schools.

Some expenditures, such as those for federal or state agency administration and those for ungraded special education programs, cannot be assigned to particular grade levels by any obviously universally superior method. These expenditures defy strict grade-level categorizations. Like some other countries, the United States has chosen to prorate these expenditures over the grade levels based on the relative size of enrollments, staffing, and salaries. Other countries, however, have chosen not to allocate such expenditures, classifying them, instead, as "undistributed."

Higher Education

Current public expenditures for higher education in the United States include expenditures at both public and private colleges and universities funded by federal, state, and local governments. The Integrated Postsecondary Education Data System (IPEDS), the core postsecondary education data collection program for NCES, gathers institutional reports for revenue received by both public and private institutions from both public and private sources. Current expenditures by public and private nonprofit institutions are separated into public and private expenditures based on the share of current fund revenues from federal, state, and local sources.

Most federal aid goes to students who then spend it on education (e.g., tuition) and noneducation (room and board) services. It was assumed that the 60 percent of federally administered Pell grants were spent by students on education expenditures.

With the exception of Pell grant money, public expenditures for less-than-2-year public and private institutions were not available; therefore, *current public expenditures for higher education* in the United States are biased downward. But the students participating in these institutions are also excluded from higher education enrollments; as a result, the estimate of *public expenditures per student* would be biased upward if the per-student public expenditures in less-than-2-year institutions are less than those in other higher education institutions.

Private Expenditures

Per pupil expenditures are calculated as current public expenditures divided by enrollment in both public and private schools. This is a measure of average public investment per student in the education system, rather than a measure of the total resources a student receives, which would include private expenditures. For Canada, France, Germany, Japan, and the United States, private education expenditures are a significant portion of the GDP.

Total Expenditures on Education in 1992

	Percentage of GDP		
Country	Public sources	Private sources	Total
Canada	7.2	0.2	7.4
France	5.5	0.4	5.9
Former West Germany*	4.1	1.5	5.6
Spain	4.6	0.7	5.3
Japan	3.6	1.1	4.7
United Kingdom	5.2	—	—
United States	5.4	1.6	7.0

— Not available.

*Data for private sources from 1991.

NOTE: *Total expenditures* include current expenditures, capital expenditures, and interest on debt.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance: OECD Indicators*, 1995, table F1 (B3).

How Students Are Classified

The International Standard Classification of Education (ISCED) was designed as an instrument for presenting statistics of education internationally. Many countries report education statistics to UNESCO and the Organization for Economic Cooperation and Development (OECD) using the ISCED. In this classification system, education is divided into several levels.

The following are summary definitions used in this indicator:

- *Education preceding the first level*, where it is provided, usually begins at age 3, 4, or 5 (sometimes earlier) and lasts from 1–3 years. For the United States, this would primarily be nursery schools and kindergarten classes.
- *Education at the first level* usually begins at age 5, 6, or 7 and lasts for about 5 or 6 years. For the United States, this would start with grade 1 and finish with grade 6.
- *Education at the second level, first stage*, begins at about age 11 or 12 and lasts for about 3 years. *Education at the second level, second stage*, begins at about age 14 or 15 and lasts about 3 years. For the United States, second level would start with grade 7 and finish with grade 12.
- *Education at the third level* is provided at universities, colleges, and professional schools, and typically requires as a minimum condition of admission the successful completion of education at the second level (or equivalent knowledge). For the United States, third level includes junior colleges and degree-granting institutes in addition to 4-year colleges and universities.

For the United States, preprimary education includes enrollment in both public and private nursery schools and kindergartens. This is what is considered *education preceding the first level* using ISCED terminology. ISCED levels 1 and 2 are defined as total public and private enrollments in grades 1–12, and ISCED level 3 is defined as higher education for the purposes of this indicator. Expenditures reported by countries as "undistributed" or "other" are shown in table 54-4, and are not allocated across education levels in this indicator.

How Expenditures Are Compared Across Countries

To compare public expenditures per student in the United States to expenditures per student in other countries, expenditures must be denominated in a common currency. Conversion of other countries' expenditures to U.S. dollars facilitates comparison with expenditures in the United States. There are at least two methods of conversion: (1) market exchange rates, and (2) Purchasing Power Parity (PPP) indices.

The market exchange rate is the rate at which an individual can exchange the currencies of two countries. It is determined by confidence in the government, the monetary system, and the economies of the two countries and by the relative demand for the commodities that the two countries trade. Market exchange rates can be highly volatile.[1]

PPP indices are calculated by comparing the cost of a fixed market basket of goods in each country. Changes over time in the PPP index are determined by the rates of inflation in each country. The PPP index is not volatile.[2]

PPP indices for the GDP have been used in this indicator.[2]

Because the fiscal year has a different starting month in different countries, within-country Consumer Price Indices (CPIs) calculated by the International Monetary Fund were used to adjust educational expenditure per-pupil data to allow for inflation between the starting month of the fiscal year and July 1, 1990. See supplemental table 54-5 for both the PPP indices used in this indicator and the CPI adjustment ratios.

Problems in Comparing Education Expenditures Across Countries

There exists some variation in the coverage and the character of the education expenditure data that countries submit to OECD. Sometimes, an individual expenditure item may be included in the expenditure data from one country, but not included in the expenditure data from another. Discrepancies arise because one country may collect certain kinds of data that another country either does not collect, or does not collect in its "education" data collections. Or, one country may define what constitutes an "education" expenditure differently than another country does.

Discrepancies between which expenditure items are included in one country's expenditure figures and not in another's tend to arise in three general domains:

(1) **Non-instructional (or, ancillary) services**: Some countries provide fewer ancillary services in their schools and, thus, include fewer expenditures for such services in their education expenditure figures. Examples of ancillary services are school cafeterias; dormitories; schools sports programs; school health clinics or visiting school nurses; attendance (i.e., truancy) services; and speech or psychological therapy services. U.S. schools tend to subsidize relatively more ancillary services through their education budgets than do schools in most other countries. In some countries (e.g., Germany), *none* of the aforementioned services are provided at the primary and lower secondary levels by many schools.

(2) **Private expenditures**: Some countries' education systems receive large private contributions. The most common forms of private contributions to education are student tuition or fees; organizational subsidies, such as those provided by religious denominations to their own schools; and corporate in-kind contributions, such as those provided by German and Austrian firms that provide vocational courses on the shop floor for participating youth apprentices. Private expenditures have not been included in the indicators used in this report, in part because precise figures for private education expenditures are not available for the U.S. nor for several other countries.

(3) **The boundaries of education**: There exist fewer (though, still some) inconsistencies in comparing just the *instructional* expenditures for *primary* and *secondary* public education in just the *academic* track. But, the "borderlands" of education cause comparability problems. The borderlands include: preprimary education and daycare; special education; adult education; vocational and technical education; and proprietary education. Some countries, for example, simply do not collect expenditure data for private "center-based" daycare as they do not define such to be "education." Indeed, in some countries, even public daycare is not managed by education authorities; rather, it is the responsibility of human services departments.

The exact location of each "boundary" also varies from country to country and even within each country. In Canada, for example, vocational/technical students in Quebec choose to enter vocational/technical college in the 12th grade, while in the other Canadian provinces with vocational/technical colleges, entry is in the 13th or 14th grade. Thus, vocational/technical students in the other provinces spend another year or two at the upper secondary level. The more time the average student spends in a level of education, the greater will be the expenditure at that level.

Even these three domains do not include all the possible comparability problems. There remain, for example, inconsistencies in how different countries treat public contributions to teacher retirement and fringe benefits, student financial aid, and university research and hospitals.

The National Center for Education Statistics (NCES) has sponsored two studies designed to examine the issue of the comparability of national figures of education expenditure. The studies involve 10 countries and examine, in detail, the content of their education expenditures, as they are reported to the OECD.

Thus far, participating education ministries have been receptive to the idea of improving comparability in the OECD data collection. Indeed, some countries have already modified their data submissions to the OECD for this latest year, thus improving the comparability of education expenditures across countries for the data collection used for this report. These changes were motivated in part by preliminary findings from the NCES expenditure comparability studies.[3]

NOTES:

[1] For a further argument against using market exchange rates, see Edith M. Rasel and Lawrence Mishel, *Shortchanging Education*, Economic Policy Institute, January 1990.

[2] PPP indices for other aggregates such as private consumption expenditures are available. See Stephen M Barro, *International Comparisons of Education Spending: Some Conceptual and Methodological Issues*, SMB Economic Research, Inc., April 1990, for a discussion of the strengths and weaknesses of using various indices.

[3] See Stephen M. Barrow, *Preliminary Findings from the Expenditure Comparability Study*, SMB Economic Research, Inc., June, 1993.

Table 55-1 Educational and general expenditures per full-time-equivalent student (in 1994 constant dollars) of institutions of higher education, by type of expenditure and type of institution: Academic years ending 1977–92

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public services	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Private universities[2]										
1977	$22,120	$8,410	$2,929	$737	$4,658	$919	$495	$1,938	$1,794	$238
1978	21,897	8,310	2,925	737	4,550	920	463	1,915	1,830	248
1979	22,176	8,287	3,113	763	4,594	866	465	1,996	1,798	295
1980	22,529	8,530	3,194	758	4,625	830	520	2,000	1,783	288
1981	22,778	8,683	3,173	801	4,513	839	471	2,074	1,873	349
1982	22,691	8,862	3,139	826	4,296	840	458	2,148	1,856	267
1983	22,899	9,016	3,393	851	4,091	826	473	2,107	1,873	269
1984	24,601	9,487	3,747	907	4,362	934	486	2,226	2,159	291
1985	25,647	9,748	3,828	967	4,653	901	622	2,287	2,289	352
1986	26,705	10,086	4,006	1,027	4,937	931	635	2,297	2,436	351
1987	29,094	11,175	4,420	1,123	5,366	889	743	2,250	2,723	405
1988	29,413	11,041	4,466	1,122	5,506	1,028	722	2,276	2,817	436
1989	29,917	11,361	4,536	1,119	5,512	1,010	747	2,246	2,913	471
1990	30,317	11,466	4,467	1,126	5,648	1,030	769	2,281	2,992	539
1991	31,230	11,960	4,613	1,172	5,553	995	800	2,424	3,211	502
1992	32,242	12,304	4,764	1,187	5,619	1,043	810	2,427	3,578	511
Public universities										
1977	$14,289	$5,572	$1,855	$527	$2,623	$503	$1,159	$1,302	$573	$175
1978	14,441	5,666	1,900	549	2,680	485	1,135	1,327	551	149
1979	14,967	5,847	1,961	556	2,833	483	1,221	1,388	526	152
1980	14,829	5,748	1,860	560	2,891	548	1,197	1,359	520	148
1981	14,582	5,617	1,877	550	2,867	472	1,211	1,328	515	145
1982	14,377	5,581	1,883	540	2,768	466	1,167	1,347	501	124
1983	14,361	5,576	1,881	540	2,755	472	1,161	1,350	502	123
1984	14,723	5,678	1,934	550	2,815	493	1,183	1,390	534	146
1985	15,443	5,911	2,117	571	2,999	496	1,237	1,422	552	137
1986	16,097	6,067	2,239	592	3,167	520	1,294	1,423	606	189
1987	16,348	6,212	2,292	609	3,266	503	1,281	1,358	629	198
1988	16,762	6,257	2,328	625	3,452	536	1,305	1,360	667	231
1989	17,000	6,259	2,366	635	3,562	529	1,363	1,346	713	226
1990	16,994	6,215	2,341	622	3,630	521	1,370	1,332	726	236
1991	17,288	6,269	2,367	628	3,757	516	1,412	1,312	779	248
1992	17,246	6,214	2,294	635	3,790	517	1,426	1,269	851	250
Private 4-year colleges										
1977	$10,905	$4,073	$2,223	$809	$551	$426	$262	$1,220	$1,086	$255
1978	10,875	4,078	2,238	826	524	428	238	1,231	1,062	251
1979	11,010	4,093	2,283	849	577	422	241	1,238	1,052	256
1980	11,213	4,111	2,328	872	595	413	243	1,283	1,103	266
1981	11,253	4,058	2,377	893	569	405	260	1,298	1,133	259
1982	11,397	4,114	2,438	915	527	406	287	1,303	1,150	256
1983	11,648	4,220	2,524	956	519	424	281	1,298	1,169	257
1984	12,052	4,334	2,609	990	534	431	289	1,317	1,278	271
1985	12,510	4,454	2,711	1,036	570	440	306	1,323	1,388	283
1986	12,984	4,553	2,818	1,078	629	451	332	1,330	1,497	295
1987	13,725	4,713	3,134	1,142	669	395	371	1,337	1,657	307
1988	14,042	4,784	3,102	1,179	707	443	416	1,333	1,792	286
1989	14,117	4,771	3,131	1,195	705	441	412	1,327	1,828	307
1990	14,387	4,824	3,149	1,230	699	445	447	1,316	1,958	319
1991	14,615	4,884	3,252	1,270	647	423	448	1,298	2,079	315
1992	15,029	4,973	3,209	1,304	640	448	486	1,288	2,363	317

Table 55-1 Educational and general expenditures per full-time-equivalent student (in 1994 constant dollars) of institutions of higher education, by type of expenditure and type of institution: Academic years ending 1977–92—Continued

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public services	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Public 4-year colleges										
1977	$10,419	$4,833	$1,735	$601	$729	$408	$300	$1,202	$406	$206
1978	10,527	4,866	1,758	629	745	406	302	1,230	366	223
1979	10,865	4,958	1,860	677	817	411	313	1,263	351	216
1980	11,002	4,936	1,900	687	878	420	337	1,288	359	199
1981	10,879	4,877	1,870	668	864	424	338	1,295	342	201
1982	10,826	4,942	1,904	631	821	405	333	1,314	305	172
1983	10,575	4,829	1,840	626	796	387	325	1,285	311	176
1984	10,696	4,827	1,949	674	806	403	332	1,212	306	187
1985	11,311	5,066	2,080	704	877	413	372	1,319	302	180
1986	11,722	5,280	2,159	729	955	420	383	1,250	336	209
1987	11,695	5,229	2,188	718	1,005	379	417	1,212	360	189
1988	11,912	5,311	2,195	739	1,058	399	445	1,206	367	192
1989	11,675	5,208	2,130	713	1,092	386	446	1,151	357	191
1990	11,807	5,241	2,203	715	1,096	386	472	1,131	378	184
1991	11,472	5,088	2,133	715	1,090	353	455	1,083	382	174
1992	11,654	5,035	2,202	709	1,133	359	497	1,055	474	191
Public 2-year colleges										
1977	$5,616	$2,868	$1,017	$471	$18	$197	$112	$631	$164	$137
1978	5,655	2,862	1,097	463	10	199	120	642	125	137
1979	5,349	2,935	1,142	492	22	198	113	663	130	154
1980	5,759	2,896	1,095	498	24	184	128	675	134	124
1981	5,512	2,791	1,051	481	21	174	119	659	124	93
1982	5,507	2,802	1,046	486	11	186	105	676	114	81
1983	5,216	2,653	1,019	466	11	156	78	639	110	82
1984	5,295	2,690	1,050	465	11	158	90	646	107	77
1985	5,813	2,922	1,173	511	9	169	118	703	126	80
1986	6,005	2,997	1,243	539	6	173	119	715	132	81
1987	6,090	3,023	1,327	573	7	138	132	703	137	51
1988	5,999	2,952	1,275	595	6	163	136	682	144	46
1989	6,038	2,993	1,300	571	7	157	150	674	143	43
1990	5,887	2,931	1,264	570	8	150	143	648	134	40
1991	5,949	2,966	1,284	588	8	147	143	638	141	35
1992	5,686	2,859	1,192	581	9	137	128	589	158	34

[1] Includes institutional and academic support less libraries.

[2] Includes institutions with medical schools. Private doctoral institutions with a medical school have substantially higher instructional expenditures per FTE student than those without a medical school.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars and the CPI was used to forecast the HEPI to July 1994. Data in this table may differ slightly from data appearing in other tables. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994,* tables 332–336 (based on the IPEDS/HEGIS Institutional Characteristics, Financial Statistics, and Fall Enrollment Surveys).

Table 55-2 Percentage distribution of educational and general expenditures per full-time-equivalent student of institutions of higher education across types of expenditure, by type of institution: Academic years ending 1977–92

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Private universities[2]										
1977	100.0	38.0	13.2	3.3	21.1	4.2	2.2	8.8	8.1	1.1
1978	100.0	38.0	13.4	3.4	20.8	4.2	2.1	8.7	8.4	1.1
1979	100.0	37.4	14.0	3.4	20.7	3.9	2.1	9.0	8.1	1.3
1980	100.0	37.9	14.2	3.4	20.5	3.7	2.3	8.9	7.9	1.3
1981	100.0	38.1	13.9	3.5	19.8	3.7	2.1	9.1	8.2	1.5
1982	100.0	39.1	13.8	3.6	18.9	3.7	2.0	9.5	8.2	1.2
1983	100.0	39.4	14.8	3.7	17.9	3.6	2.1	9.2	8.2	1.2
1984	100.0	38.6	15.2	3.7	17.7	3.8	2.0	9.0	8.8	1.2
1985	100.0	38.0	14.9	3.8	18.1	3.5	2.4	8.9	8.9	1.4
1986	100.0	37.8	15.0	3.8	18.5	3.5	2.4	8.6	9.1	1.3
1987	100.0	38.4	15.2	3.9	18.4	3.1	2.6	7.7	9.4	1.4
1988	100.0	37.5	15.2	3.8	18.7	3.5	2.5	7.7	9.6	1.5
1989	100.0	38.0	15.2	3.7	18.4	3.4	2.5	7.5	9.7	1.6
1990	100.0	37.8	14.7	3.7	18.6	3.4	2.5	7.5	9.9	1.8
1991	100.0	38.3	14.8	3.8	17.8	3.2	2.6	7.8	10.3	1.6
1992	100.0	38.2	14.8	3.7	17.4	3.2	2.5	7.5	11.1	1.6
Public universities										
1977	100.0	39.0	13.0	3.7	18.4	3.5	8.1	9.1	4.0	1.2
1978	100.0	39.2	13.2	3.8	18.6	3.4	7.9	9.2	3.8	1.0
1979	100.0	39.1	13.1	3.7	18.9	3.2	8.2	9.3	3.5	1.0
1980	100.0	38.8	12.5	3.8	19.5	3.7	8.1	9.2	3.5	1.0
1981	100.0	38.5	12.9	3.8	19.7	3.2	8.3	9.1	3.5	1.0
1982	100.0	38.8	13.1	3.8	19.3	3.2	8.1	9.4	3.5	0.9
1983	100.0	38.8	13.1	3.8	19.2	3.3	8.1	9.4	3.5	0.9
1984	100.0	38.6	13.1	3.7	19.1	3.3	8.0	9.4	3.6	1.0
1985	100.0	38.3	13.7	3.7	19.4	3.2	8.0	9.2	3.6	0.9
1986	100.0	37.7	13.9	3.7	19.7	3.2	8.0	8.8	3.8	1.2
1987	100.0	38.0	14.0	3.7	20.0	3.1	7.8	8.3	3.8	1.2
1988	100.0	37.3	13.9	3.7	20.6	3.2	7.8	8.1	4.0	1.4
1989	100.0	36.8	13.9	3.7	21.0	3.1	8.0	7.9	4.2	1.3
1990	100.0	36.6	13.8	3.7	21.4	3.1	8.1	7.8	4.3	1.4
1991	100.0	36.3	13.7	3.6	21.7	3.0	8.2	7.6	4.5	1.4
1992	100.0	36.0	13.3	3.7	22.0	3.0	8.3	7.4	4.9	1.4
Private 4-year colleges										
1977	100.0	37.3	20.4	7.4	5.1	3.9	2.4	11.2	10.0	2.3
1978	100.0	37.5	20.6	7.6	4.8	3.9	2.2	11.3	9.8	2.3
1979	100.0	37.2	20.7	7.7	5.2	3.8	2.2	11.2	9.6	2.3
1980	100.0	36.7	20.8	7.8	5.3	3.7	2.2	11.4	9.8	2.4
1981	100.0	36.1	21.1	7.9	5.1	3.6	2.3	11.5	10.1	2.3
1982	100.0	36.1	21.4	8.0	4.6	3.6	2.5	11.4	10.1	2.2
1983	100.0	36.2	21.7	8.2	4.5	3.6	2.4	11.1	10.0	2.2
1984	100.0	36.0	21.6	8.2	4.4	3.6	2.4	10.9	10.6	2.2
1985	100.0	35.6	21.7	8.3	4.6	3.5	2.4	10.6	11.1	2.3
1986	100.0	35.1	21.7	8.3	4.8	3.5	2.6	10.2	11.5	2.3
1987	100.0	34.3	22.8	8.3	4.9	2.9	2.7	9.7	12.1	2.2
1988	100.0	34.1	22.1	8.4	5.0	3.2	3.0	9.5	12.8	2.0
1989	100.0	33.8	22.2	8.5	5.0	3.1	2.9	9.4	12.9	2.2
1990	100.0	33.5	21.9	8.5	4.9	3.1	3.1	9.1	13.6	2.2
1991	100.0	33.4	22.3	8.7	4.4	2.9	3.1	8.9	14.2	2.2
1992	100.0	33.1	21.4	8.7	4.3	3.0	3.2	8.6	15.7	2.1

Table 55-2 Percentage distribution of educational and general expenditures per full-time-equivalent student of institutions of higher education across types of expenditure, by type of institution: Academic years ending 1977–92—Continued

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Public 4-year colleges										
1977	100.0	46.4	16.7	5.8	7.0	3.9	2.9	11.5	3.9	2.0
1978	100.0	46.2	16.7	6.0	7.1	3.9	2.9	11.7	3.5	2.1
1979	100.0	45.6	17.1	6.2	7.5	3.8	2.9	11.6	3.2	2.0
1980	100.0	44.9	17.3	6.2	8.0	3.8	3.1	11.7	3.3	1.8
1981	100.0	44.8	17.2	6.1	7.9	3.9	3.1	11.9	3.1	1.8
1982	100.0	45.6	17.6	5.8	7.6	3.7	3.1	12.1	2.8	1.6
1983	100.0	45.7	17.4	5.9	7.5	3.7	3.1	12.2	2.9	1.7
1984	100.0	45.1	18.2	6.3	7.5	3.8	3.1	11.3	2.9	1.7
1985	100.0	44.8	18.4	6.2	7.8	3.7	3.3	11.7	2.7	1.6
1986	100.0	45.0	18.4	6.2	8.1	3.6	3.3	10.7	2.9	1.8
1987	100.0	44.7	18.7	6.1	8.6	3.2	3.6	10.4	3.1	1.6
1988	100.0	44.6	18.4	6.2	8.9	3.3	3.7	10.1	3.1	1.6
1989	100.0	44.6	18.2	6.1	9.4	3.3	3.8	9.9	3.1	1.6
1990	100.0	44.4	18.7	6.1	9.3	3.3	4.0	9.6	3.2	1.6
1991	100.0	44.4	18.6	6.2	9.5	3.1	4.0	9.4	3.3	1.5
1992	100.0	43.2	18.9	6.1	9.7	3.1	4.3	9.1	4.1	1.6
Public 2-year colleges										
1977	100.0	51.1	18.1	8.4	0.3	3.5	2.0	11.2	2.9	2.4
1978	100.0	50.6	19.4	8.2	0.2	3.5	2.1	11.4	2.2	2.4
1979	100.0	50.2	19.5	8.4	0.4	3.4	1.9	11.3	2.2	2.6
1980	100.0	50.3	19.0	8.6	0.4	3.2	2.2	11.7	2.3	2.2
1981	100.0	50.6	19.1	8.7	0.4	3.2	2.2	12.0	2.2	1.7
1982	100.0	50.9	19.0	8.8	0.2	3.4	1.9	12.3	2.1	1.5
1983	100.0	50.9	19.5	8.9	0.2	3.0	1.5	12.3	2.1	1.6
1984	100.0	50.8	19.8	8.8	0.2	3.0	1.7	12.2	2.0	1.5
1985	100.0	50.3	20.2	8.8	0.2	2.9	2.0	12.1	2.2	1.4
1986	100.0	49.9	20.7	9.0	0.1	2.9	2.0	11.9	2.2	1.3
1987	100.0	49.6	21.8	9.4	0.1	2.3	2.2	11.5	2.2	0.8
1988	100.0	49.2	21.3	9.9	0.1	2.7	2.3	11.4	2.4	0.8
1989	100.0	49.6	21.5	9.5	0.1	2.6	2.5	11.2	2.4	0.7
1990	100.0	49.8	21.5	9.7	0.1	2.5	2.4	11.0	2.3	0.7
1991	100.0	49.9	21.6	9.9	0.1	2.5	2.4	10.7	2.4	0.6
1992	100.0	50.3	21.0	10.2	0.2	2.4	2.3	10.4	2.8	0.6

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[1] Includes institutional and academic support less libraries.

[2] Includes institutions with medical schools. Private doctoral institutions with a medical school have substantially higher instructional expenditures per FTE students than those without a medical school.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, tables 332–336 (based on the IPEDS/HEGIS Institutional Characteristics, Financial Statistics, and Fall Enrollment Surveys).

Table 56-1 Current fund revenues per full-time-equivalent student (in 1994 constant dollars) of institutions of higher education, by type of revenue sources and type of institution: Academic years ending 1977–92

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
Private universities									
1977	$21,538	$8,672	$472	$380	$5,971	$533	$2,789	$1,729	$992
1978	21,321	8,658	423	341	5,843	480	2,848	1,633	1,096
1979	21,422	8,745	423	329	5,861	479	2,773	1,754	1,058
1980	21,930	8,791	428	310	6,105	580	2,722	1,815	1,181
1981	22,089	9,013	396	335	6,059	463	2,818	1,861	1,146
1982	21,988	9,348	374	316	5,636	429	2,796	1,915	1,175
1983	22,200	9,995	400	317	5,155	478	2,867	1,720	1,268
1984	24,082	10,652	388	308	5,497	521	3,238	2,014	1,463
1985	24,854	11,035	384	308	5,667	529	3,354	2,171	1,407
1986	25,910	11,452	354	315	6,004	560	3,518	2,222	1,485
1987	27,949	12,238	321	310	6,684	775	3,714	2,302	1,604
1988	28,500	12,549	315	287	6,355	1,036	3,836	2,414	1,708
1989	29,064	12,779	325	272	6,377	1,082	3,838	2,512	1,879
1990	29,418	12,927	333	268	6,450	1,080	3,952	2,519	1,889
1991	29,705	13,357	280	237	6,301	941	4,042	2,518	2,030
1992	30,459	13,729	271	165	6,431	1,036	4,121	2,455	2,251
Public universities									
1977	$14,329	$2,351	$415	$7,514	$2,440	$305	$675	$102	$527
1978	14,595	2,382	439	7,667	2,432	313	708	143	512
1979	15,180	2,421	449	7,914	2,567	344	718	158	609
1980	15,081	2,395	385	7,816	2,619	324	749	170	623
1981	14,666	2,409	337	7,528	2,534	331	738	161	628
1982	14,347	2,520	304	7,381	2,265	310	768	164	636
1983	14,384	2,729	295	7,232	2,159	302	844	177	645
1984	14,871	2,845	295	7,529	2,208	282	858	197	657
1985	15,659	2,865	334	8,016	2,315	311	928	207	684
1986	16,318	3,041	335	8,235	2,415	329	1,013	231	719
1987	16,301	3,172	305	8,038	2,445	399	1,041	170	732
1988	16,732	3,320	250	8,156	2,579	409	1,106	166	745
1989	16,964	3,392	254	8,095	2,640	438	1,186	176	782
1990	17,112	3,481	239	8,013	2,664	491	1,257	179	789
1991	17,071	3,597	235	7,783	2,725	506	1,229	182	813
1992	16,931	3,758	229	7,260	2,859	462	1,282	211	871
Private 4-year colleges									
1977	$10,645	$6,567	$99	$223	$1,152	$216	$1,662	$623	$104
1978	10,567	6,609	104	209	1,114	213	1,608	610	109
1979	10,697	6,651	108	202	1,177	212	1,574	660	112
1980	11,015	6,723	115	204	1,271	251	1,597	731	123
1981	10,975	6,763	119	206	1,173	249	1,574	762	130
1982	11,052	6,968	93	193	1,019	252	1,570	842	114
1983	11,258	7,278	69	195	868	265	1,626	842	115
1984	11,560	7,518	63	195	885	273	1,645	851	129
1985	11,984	7,771	64	191	917	300	1,713	902	125
1986	12,362	8,018	60	196	969	321	1,747	920	130
1987	13,074	8,522	72	212	961	380	1,838	947	140
1988	13,336	8,741	72	219	987	408	1,791	975	143
1989	13,455	8,881	57	182	958	488	1,744	1,003	142
1990	13,712	9,166	52	170	973	517	1,697	1,002	136
1991	13,882	9,450	51	158	942	489	1,670	990	132
1992	14,230	9,799	52	118	990	581	1,630	923	136

Table 56-1 Current fund revenues per full-time-equivalent student (in 1994 constant dollars) of institutions of higher education, by type of revenue sources and type of institution: Academic years ending 1977–92—Continued

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
Public 4-year colleges									
1977	$10,764	$1,763	$529	$6,531	$1,250	$224	$255	$34	$178
1978	10,889	1,741	530	6,688	1,190	241	273	26	199
1979	11,237	1,710	553	6,928	1,257	261	279	32	218
1980	11,373	1,694	573	6,993	1,283	253	295	39	243
1981	11,161	1,713	595	6,791	1,221	248	298	44	251
1982	11,110	1,793	518	6,834	1,078	238	326	48	278
1983	10,820	1,843	517	6,624	937	232	350	44	272
1984	10,975	1,997	515	6,562	937	252	366	46	300
1985	11,674	2,056	536	7,087	966	250	400	47	332
1986	12,122	2,140	517	7,279	1,022	312	438	51	362
1987	11,886	2,139	513	6,984	995	355	448	57	394
1988	12,060	2,221	513	7,048	1,004	345	444	59	427
1989	11,841	2,273	333	6,875	1,018	355	486	66	437
1990	11,783	2,317	499	6,555	1,013	371	509	66	454
1991	11,272	2,330	431	6,068	1,006	385	539	38	473
1992	11,785	2,637	420	6,043	1,105	441	582	73	484
Public 2-year colleges									
1977	$5,727	$962	$114	$4,153	$330	$112	$29	$4	$23
1978	5,744	925	102	4,212	317	132	28	3	24
1979	5,864	928	114	4,262	353	146	27	4	30
1980	5,790	933	78	4,201	365	151	27	5	30
1981	5,516	928	68	3,957	345	154	27	6	31
1982	5,454	980	59	3,911	285	156	29	6	27
1983	5,109	985	41	3,650	221	148	29	7	27
1984	5,243	1,023	45	3,725	229	154	31	8	28
1985	5,719	1,091	43	4,055	265	194	35	8	28
1986	5,981	1,111	37	4,268	268	218	38	8	34
1987	6,059	1,121	45	4,269	251	292	39	9	35
1988	5,905	1,105	43	4,163	240	275	42	5	31
1989	6,052	1,155	40	4,159	254	361	48	6	30
1990	5,904	1,157	39	3,997	249	373	51	6	32
1991	5,891	1,206	41	3,971	246	336	53	6	31
1992	5,743	1,269	48	3,743	260	331	56	5	31

* Federally supported student aid received through students (e.g., Pell grants) is included under tuition and auxiliary enterprises.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars and the CPI was used to forecast the HEPI to July 1994. Data in this table may differ slightly from data appearing in other tables. Data for 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education Survey; and Integrated Postsecondary Education Data System (IPEDS), Finance Survey.

Table 56-2 Percentage distibution of current fund revenues per full-time-equivalent student of institutions of higher education across sources of revenue, by type of institution: Academic years ending 1977–92

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
Private universities									
1977	100	40	2	2	28	2	13	8	5
1978	100	41	2	2	27	2	13	8	5
1979	100	41	2	2	27	2	13	8	5
1980	100	40	2	1	28	3	12	8	5
1981	100	41	2	2	27	2	13	8	5
1982	100	43	2	1	26	2	13	9	5
1983	100	45	2	1	23	2	13	8	6
1984	100	44	2	1	23	2	13	8	6
1985	100	44	2	1	23	2	13	9	6
1986	100	44	1	1	23	2	14	9	6
1987	100	44	1	1	24	3	13	8	6
1988	100	44	1	1	22	4	13	8	6
1989	100	44	1	1	22	4	13	9	6
1990	100	44	1	1	22	4	13	9	6
1991	100	45	1	1	21	3	14	8	7
1992	100	45	1	1	21	3	14	8	7
Public universities									
1977	100	16	3	52	17	2	5	1	4
1978	100	16	3	53	17	2	5	1	4
1979	100	16	3	52	17	2	5	1	4
1980	100	16	3	52	17	2	5	1	4
1981	100	16	2	51	17	2	5	1	4
1982	100	18	2	51	16	2	5	1	4
1983	100	19	2	50	15	2	6	1	4
1984	100	19	2	51	15	2	6	1	4
1985	100	18	2	51	15	2	6	1	4
1986	100	19	2	50	15	2	6	1	4
1987	100	19	2	49	15	2	6	1	4
1988	100	20	1	49	15	2	7	1	4
1989	100	20	1	48	16	3	7	1	5
1990	100	20	1	47	16	3	7	1	5
1991	100	21	1	46	16	3	7	1	5
1992	100	22	1	43	17	3	8	1	5
Private 4-year colleges									
1977	100	62	1	2	11	2	16	6	1
1978	100	63	1	2	11	2	15	6	1
1979	100	62	1	2	11	2	15	6	1
1980	100	61	1	2	12	2	14	7	1
1981	100	62	1	2	11	2	14	7	1
1982	100	63	1	2	9	2	14	8	1
1983	100	65	1	2	8	2	14	7	1
1984	100	65	1	2	8	2	14	7	1
1985	100	65	1	2	8	3	14	8	1
1986	100	65	0	2	8	3	14	7	1
1987	100	65	1	2	7	3	14	7	1
1988	100	66	1	2	7	3	13	7	1
1989	100	66	0	1	7	4	13	7	1
1990	100	67	0	1	7	4	12	7	1
1991	100	68	0	1	7	4	12	7	1
1992	100	69	0	1	7	4	11	6	1

Table 56-2 Percentage distibution of current fund revenues per full-time-equivalent student of institutions of higher education across sources of revenue, by type of institution: Academic years ending 1977–92—Continued

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
Public 4-year colleges									
1977	100	16	5	61	12	2	2	0	2
1978	100	16	5	61	11	2	3	0	2
1979	100	15	5	62	11	2	2	0	2
1980	100	15	5	61	11	2	3	0	2
1981	100	15	5	61	11	2	3	0	2
1982	100	16	5	62	10	2	3	0	3
1983	100	17	5	61	9	2	3	0	3
1984	100	18	5	60	9	2	3	0	3
1985	100	18	5	61	8	2	3	0	3
1986	100	18	4	60	8	3	4	0	3
1987	100	18	4	59	8	3	4	0	3
1988	100	18	4	58	8	3	4	0	4
1989	100	19	3	58	9	3	4	1	4
1990	100	20	4	56	9	3	4	1	4
1991	100	21	4	54	9	3	5	0	4
1992	100	22	4	51	9	4	5	1	4
Public 2-year colleges									
1977	100	17	2	73	6	2	1	0	0
1978	100	16	2	73	6	2	0	0	0
1979	100	16	2	73	6	2	0	0	1
1980	100	16	1	73	6	3	0	0	1
1981	100	17	1	72	6	3	0	0	1
1982	100	18	1	72	5	3	1	0	0
1983	100	19	1	71	4	3	1	0	1
1984	100	20	1	71	4	3	1	0	1
1985	100	19	1	71	5	3	1	0	0
1986	100	19	1	71	4	4	1	0	1
1987	100	19	1	70	4	5	1	0	1
1988	100	19	1	70	4	5	1	0	1
1989	100	19	1	69	4	6	1	0	0
1990	100	20	1	68	4	6	1	0	1
1991	100	20	1	67	4	6	1	0	1
1992	100	22	1	65	5	6	1	0	1

* Federally supported student aid received through students (e.g., Pell Grants) is included under tuition and auxiliary enterprises.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education Survey; and Integrated Postsecondary Education Data System (IPEDS), Finance Survey.

Table 57-1 Average annual and beginning salary (in 1994 constant dollars) of public elementary and secondary school teachers: Selected school years ending 1960–94

School year ending	All teachers	Elementary teachers	Secondary teachers	Beginning teachers*
1960	$25,227	$24,319	$26,647	—
1962	27,229	26,364	28,511	—
1964	28,845	27,932	30,150	—
1966	30,161	29,203	31,445	—
1968	32,391	31,454	33,566	—
1970	33,887	33,047	34,929	—
1971	34,622	33,700	35,743	—
1972	34,999	33,986	36,175	$24,745
1973	35,270	34,295	36,424	—
1974	34,279	33,442	35,257	24,256
1975	33,355	32,476	34,384	—
1976	33,716	32,860	34,618	23,694
1977	33,765	32,842	34,832	—
1978	33,640	32,804	34,597	22,902
1979	32,566	31,805	33,471	—
1980	30,528	29,761	31,463	21,028
1981	30,227	29,517	31,079	—
1982	30,393	29,729	31,230	20,821
1983	31,290	30,583	32,192	—
1984	31,981	31,328	32,884	22,113
1985	33,113	32,552	33,936	—
1986	34,366	33,709	35,247	23,921
1987	35,446	34,763	36,348	—
1988	35,913	35,254	36,892	24,551
1989	36,202	35,538	37,002	—
1990	36,659	36,034	37,457	24,688
1991	36,668	36,022	37,546	24,744
1992	36,597	35,950	37,362	24,615
1993	36,470	35,768	37,323	24,555
1994	36,495	35,784	37,314	24,661

— Not available.

* Salary for beginning teachers is for the calendar year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1994*, table 77. National Education Association, *Estimates of State School Statistics, 1993-94* (Copyright © 1994 by NEA. All rights reserved.) American Federation of Teachers, *Survey and Analysis of Salary Trends 1994*, September 1994, table III-2.

Table 57-2 Average annual salaries of all teachers (in 1994 constant dollars): School years ending 1981 and 1994, percentage change 1981–94, and 1993 per capita personal income

Region and state	All teachers 1980-81	All teachers 1993-94	Percentage change 1981-94	Per capita personal income (1993)
50 states and D.C.	**$30,226**	**$36,495**	**20.7**	**$21,350**
New England	27,502	41,169	49.7	24,883
Connecticut	*29,815	50,239	68.5	28,829
Maine	23,974	31,459	31.2	19,378
Massachusetts	*32,041	*39,958	24.7	25,191
New Hampshire	22,977	36,915	60.7	23,238
Rhode Island	33,925	39,847	17.5	21,635
Vermont	22,281	*36,581	64.2	19,965
Mideast	33,562	45,523	35.6	24,704
Delaware	31,188	38,028	21.9	22,030
District of Columbia	39,200	43,148	10.1	30,191
Maryland	32,546	40,533	24.5	24,659
New Jersey	31,256	45,981	47.1	26,631
New York	36,534	47,499	30.0	25,253
Pennsylvania	30,648	44,340	44.7	21,897
Southeast	25,763	30,817	19.6	19,231
Alabama	26,048	29,134	11.8	17,675
Arkansas	22,738	28,289	24.4	16,556
Florida	26,393	32,498	23.1	21,185
Georgia	26,459	30,911	16.8	19,771
Kentucky	26,982	32,054	18.8	17,612
Louisiana	28,364	28,934*	2.0	17,114
Mississippi	22,300	25,612	14.9	15,275
North Carolina	27,167	30,123	10.9	19,180
South Carolina	24,589	30,641	24.6	17,356
Tennessee	25,899	30,485	17.7	18,905
Virginia	26,613	33,623*	26.3	22,187
West Virginia	25,608	31,005	21.1	16,623
Great Lakes	31,660	39,324	24.2	21,121
Illinois	33,278	41,601	25.0	23,159
Indiana	*29,560	*36,796	24.5	19,694
Michigan	*36,341	*43,135	18.7	20,976
Ohio	28,959	36,233	25.1	20,191
Wisconsin	30,163	37,191	23.3	20,112
Plains	26,186	32,291	23.3	20,167
Iowa	27,635	31,219	13.0	18,783
Kansas	26,125	34,688	32.8	20,654
Minnesota	30,454	36,686	20.5	21,602
Missouri	26,418	30,678	16.1	19,961
Nebraska	25,495	30,005	17.7	20,230
North Dakota	23,751	25,884	9.0	17,935
South Dakota	23,425	25,575	9.2	18,118
Southwest	27,510	30,484	10.8	18,929
Arizona	29,468	*32,153	9.1	18,584
New Mexico	28,801	28,339	-1.6	16,714
Oklahoma	24,827	27,148	9.4	17,455
Texas	26,944	30,975	15.0	19,680
Rocky Mountains	28,973	31,007	7.0	20,165
Colorado	30,694	34,331	11.8	22,115
Idaho	25,884	28,223	9.0	18,097
Montana	*27,331	*28,631	4.8	17,765
Utah	28,890	28,475	-1.4	16,594
Wyoming	32,066	31,371	-2.2	20,039
Far West	36,529	39,679	8.6	22,303
Alaska	*49,763	*47,195	-5.2	23,430
California	*35,511	*40,891	15.1	22,379
Hawaii	36,228	37,110	2.4	23,951
Nevada	30,322	34,462	13.7	23,310
Oregon	*30,917	37,705	22.0	19,940
Washington	36,435	36,395	-0.1	22,447

* Estimated by NEA.

SOURCE: National Education Association, *Estimates of State School Statistics, 1993–94*. (Copyright © 1994 by NEA. All rights reserved.) U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States: 1994*, tables 26, 698, and 699.

Table 57-3 Average amounts of compensation (in current dollars) that full-time public school teachers received, by selected school characteristics: 1990–91

School characteristics	Average amount teachers received					
	Total earnings	Base salary	Other school year compensation	Summer supplemental	Non-school income	Other earned income
Total	**$33,578**	**$31,296**	**$1,942**	**$1,993**	**$4,404**	**$1,754**
Central city	34,571	32,202	1,918	2,283	4,555	1,978
School level						
Elementary	33,119	31,234	1,358	2,127	4,346	1,999
Secondary	37,228	33,960	2,475	2,450	4,896	1,975
Combined	36,693	33,794	2,853	2,915	3,899	1,534
Minority enrollment						
Less than 20 percent	33,163	30,815	2,010	1,930	4,100	1,751
20 percent or more	34,984	32,610	1,885	2,361	4,711	2,052
School size						
Less than 150	31,098	29,288	1,787	2,277	2,534	1,333
150 to 499	32,386	30,607	1,429	2,097	4,355	1,644
500 to 749	33,450	31,438	1,403	2,197	4,377	1,956
750 or more	36,434	33,544	2,296	2,393	4,775	2,154
Urban fringe/large town	37,238	34,935	2,019	1,935	4,350	1,918
School level						
Elementary	35,312	33,776	1,284	1,705	3,536	2,005
Secondary	40,042	36,605	2,594	2,170	4,937	1,833
Combined	40,990	37,418	2,783	2,477	8,896	1,294
Minority enrollment						
Less than 20 percent	37,496	35,503	2,056	1,675	3,952	1,752
20 percent or more	36,924	34,487	1,970	2,194	4,859	2,143
School size						
Less than 150	32,825	30,459	2,266	2,838	4,432	—
150 to 499	36,773	35,103	1,607	1,564	4,292	1,616
500 to 749	35,572	33,786	1,485	1,840	3,709	1,700
750 or more	38,658	35,638	2,427	2,108	4,684	2,129
Rural/small town	29,931	27,748	1,913	1,740	4,267	1,530
School level						
Elementary	28,993	27,494	1,582	1,482	3,738	1,407
Secondary	31,573	28,351	2,164	1,997	4,830	1,724
Combined	28,892	26,552	1,844	1,914	3,873	1,606
Minority enrollment						
Less than 20 percent	30,547	28,258	1,929	1,661	4,313	1,527
20 percent or more	28,479	26,544	1,862	1,915	4,135	1,537
School size						
Less than 150	25,964	23,617	1,978	1,678	3,602	1,390
150 to 499	28,926	26,818	1,861	1,684	4,278	1,606
500 to 749	30,697	28,736	1,767	1,728	4,216	1,379
750 or more	32,103	29,545	2,125	1,863	4,506	1,584

— Too few cases for a reliable estimate.

NOTE: The averages were computed using only teachers with that type of compensation; consequently, the average in total earnings does not equal the sum of the averages for the various types of compensation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (School, Administrator, and Teacher Questionnaires).

Table 57-4 Average amounts of compensation (in current dollars) that full-time private school teachers received, by selected school characteristics: 1990–91

	Average amount teachers received					
School characteristics	Total earnings	Base salary	Other school year compensation	Summer supplemental	Non-school income	Other earned income
Total	**$21,673**	**$19,783**	**$1,712**	**$1,864**	**$3,302**	**$1,146**
Central city	22,446	20,402	1,685	1,791	3,481	1,199
School level						
Elementary	19,764	18,237	1,466	1,607	3,405	1,018
Secondary	26,900	24,162	1,824	1,954	3,886	1,832
Combined	23,047	20,739	1,629	1,869	3,249	1,018
Minority enrollment						
Less than 20 percent	22,290	20,363	1,639	1,629	3,227	1,337
20 percent or more	22,705	20,465	1,774	2,013	3,921	1,029
School size						
Less than 150	19,219	17,528	1,727	1,975	3,050	612
150 to 499	21,010	19,197	1,412	1,837	3,283	1,248
500 to 749	24,260	22,066	1,888	1,607	3,578	701
750 or more	28,193	25,239	1,900	1,690	4,520	2,000
Urban fringe/large town	22,221	20,412	1,794	2,024	3,217	926
School level						
Elementary	19,413	18,197	1,872	1,661	2,463	805
Secondary	26,260	23,345	1,962	2,077	4,397	957
Combined	24,610	22,400	1,621	2,364	3,612	1,097
Minority enrollment						
Less than 20 percent	21,358	19,621	1,871	1,860	3,225	872
20 percent or more	24,272	22,291	1,614	2,256	3,196	1,050
School size						
Less than 150	20,015	18,504	1,743	1,951	2,388	797
150 to 499	21,387	19,690	1,778	1,751	3,288	797
500 to 749	21,387	19,690	1,778	—	3,539	—
750 or more	26,521	24,674	1,126	—	4,557	—
Rural/small town	19,101	17,412	1,559	1,637	3,108	1,259
School level						
Elementary	17,857	16,678	1,372	1,744	2,527	1,126
Secondary	25,930	23,751	1,275	1,308	3,246	2,037
Combined	18,269	16,201	1,801	1,681	3,543	1,109
Minority enrollment						
Less than 20 percent	18,606	16,934	1,589	1,526	3,131	1,195
20 percent or more	22,122	20,330	—	1,917	2,946	—
School size						
Less than 150	16,799	14,996	1,450	1,953	2,869	1,504
150 to 499	19,730	18,067	1,657	1,447	3,355	1,041
500 to 749	25,392	23,992	—	—	—	—
750 or more	—	—	—	—	—	—

— Too few cases for a reliable estimate.

NOTE: The averages were computed using only teachers with that type of compensation; consequently, the average in total earnings does not equal the sum of the averages for the various types of compensation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (School, Administrator, and Teacher Questionnaires).

Table 57-5 Percentage of public school districts and private schools with salary schedules and average scheduled salary (in current dollars) for full-time teachers, by highest degree earned and years of teaching experience, percentage of schools without salary schedules, and average lowest and highest salary schedules: 1990–91

	Average scheduled salary					Schools without schedules		
School characteristics	Percent with salary schedules	Bachelor's, no experience	Master's, no experience	Master's, 20 years experience	Highest step on schedule	Percent without schedules	Average lowest	Average highest
Public districts	**94.4**	**$19,783**	**$21,698**	**$33,199**	**$36,065**	**5.6**	**$17,376**	**$24,573**
Region								
Northeast	95.2	22,534	24,378	39,797	43,846	4.8	—	—
Midwest	91.1	18,755	20,598	31,402	33,794	8.9	15,933	18,733
South	98.7	18,903	20,154	28,901	31,382	1.3	—	—
West	95.0	20,568	22,801	34,809	37,798	5.0	—	—
District size								
Less than 1,000	90.3	19,001	20,649	30,557	32,478	9.7	17,058	23,187
1,000 to 4,999	98.9	20,691	22,570	35,644	39,269	1.1	—	—
5,000 to 9,999	99.8	21,486	23,601	37,384	41,960	—	—	—
10,000 or more	99.9	21,829	23,961	37,728	42,842	—	—	—
Minority enrollment								
Less than 20 percent	93.4	19,631	21,430	32,890	35,614	6.6	17,218	24,180
20 percent or more	97.0	20,731	22,480	34,127	37,416	3.0	—	—
Minority teachers								
Less than 20 percent	93.6	19,798	21,581	33,143	35,896	6.4	17,347	23,409
20 percent or more	98.2	20,512	22,301	33,488	36,937	1.8	—	—
Private schools	**67.7**	**15,141**	**16,511**	**23,253**	**25,499**	**32.3**	**12,618**	**19,384**
Region								
Northeast	72.5	15,101	16,239	23,748	26,208	27.5	13,171	21,765
Midwest	70.2	14,637	15,879	22,821	25,403	29.8	10,327	15,407
South	60.8	14,592	15,961	22,016	23,637	39.2	11,867	18,941
West	67.3	16,565	18,400	24,710	26,880	32.7	15,987	22,607
School size								
Less than 1,000	50.7	14,798	16,163	21,718	24,147	49.3	11,907	17,417
1,000–4,999	86.9	15,092	16,478	23,626	25,613	13.1	14,705	24,726
5,000–9,999	84.4	16,648	17,912	26,966	29,639	15.6	17,959	35,601
10,000 or more	89.5	17,725	19,115	30,255	33,765	10.5	—	—
Minority enrollment								
Less than 20 percent	66.1	14,568	15,776	22,474	24,715	33.9	11,994	18,719
20 percent or more	71.3	16,313	18,017	24,848	27,104	28.7	14,213	21,125
Minority teachers								
Less than 20 percent	66.7	14,836	16,160	22,936	25,145	33.3	12,369	18,931
20 percent or more	71.5	16,261	17,805	24,420	26,802	28.5	13,730	21,408

— Too few cases for reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey: 1990-91 (Private School and Teacher Demand and Shortage Questionnaires).

Table 59-1 Percentage of full-time public secondary school teachers with selected professional characteristics, by urbanicity, percent minority students, and assignment field: School years ending 1988 and 1991

Selected characteristics and teacher assignment field	Certified in main assignment field		Certified in other assignment field[1]		Majored in main assignment field		Majored or minored in main assignment field		Majored or minored in other assignment field[1]		Graduate degree in any field	
	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91
All teachers	**93.3**	**95.2**	**66.7**	**64.2**	**68.7**	**65.8**	**79.0**	**76.8**	**52.3**	**45.1**	**51.5**	**52.1**
Urbanicity												
Rural/small town	93.3	95.2	70.1	66.2	67.5	65.6	78.8	76.3	52.7	47.4	44.9	44.2
Urban	91.8	94.6	58.4	59.3	67.5	65.2	77.5	77.2	50.0	40.7	57.0	56.2
Urban fringe/large town	95.3	95.5	65.8	64.6	71.9	66.4	81.2	77.0	53.6	44.9	59.1	59.6
Percent of students receiving free and reduced-price lunch												
0-5	95.4	96.6	73.4	69.3	73.7	71.0	83.0	81.0	57.4	53.1	59.1	63.3
6-20	94.4	95.9	67.6	65.3	70.1	67.9	80.9	78.6	56.0	49.7	50.9	51.7
21-40	92.7	95.3	65.0	63.8	66.0	63.7	77.5	74.9	49.7	44.9	47.0	47.8
41-100	89.4	92.6	60.7	59.8	62.3	61.2	72.7	73.4	42.0	33.4	47.5	47.0
Percent free and reduced-price lunch within urbanicity												
Rural/small town												
0-5	94.2	96.0	76.8	69.6	71.0	71.6	82.0	81.8	57.5	63.2	52.9	46.9
6-20	94.3	95.8	71.5	66.2	70.8	68.0	82.0	78.6	57.5	48.9	46.4	46.1
21-40	92.7	95.8	69.1	65.2	65.2	65.3	77.1	75.3	50.4	45.4	41.8	42.2
41-100	91.2	92.8	66.1	65.5	60.9	59.8	71.9	72.1	43.9	41.0	39.9	38.3
Urban												
0-5	94.3	98.5	68.4	76.4	70.5	69.5	80.4	81.3	53.5	41.4	59.2	63.3
6-20	94.5	96.4	65.5	60.3	69.6	70.9	80.3	81.4	57.5	50.8	57.8	56.9
21-40	92.1	95.2	50.9	58.0	67.3	62.0	77.4	74.9	48.3	42.5	56.4	54.5
41-100	86.5	91.7	53.1	56.1	64.1	62.2	73.2	75.2	39.1	29.7	55.4	54.4
Urban fringe/large town												
0-5	96.5	96.6	72.0	67.8	76.3	71.0	84.5	80.5	58.3	50.3	63.1	69.2
6-20	94.3	95.6	57.8	66.6	68.9	66.0	78.6	76.9	50.8	50.4	55.9	55.9
21-40	94.6	94.2	67.9	66.5	67.6	61.9	80.1	74.0	46.9	46.5	55.4	52.8
41-100	93.3	94.2	48.2	50.2	62.3	62.5	75.3	72.5	37.8	19.0	55.5	51.6
Percent minority students												
Less than 20 percent	94.5	95.8	71.1	68.0	70.7	68.3	81.2	78.8	56.0	48.8	50.1	52.6
20 percent or higher	91.6	94.3	59.9	59.8	65.3	63.1	75.7	74.7	46.5	41.2	52.9	51.3
Assignment field												
English and humanities	94.2	95.6	68.0	61.5	72.8	70.9	83.4	83.0	51.5	51.1	51.6	49.4
English	93.7	96.0	69.3	64.0	63.1	65.8	76.8	81.0	51.3	44.7	51.3	50.1
Arts and foreign language	94.8	95.1	66.1	58.4	86.1	77.7	92.5	85.6	51.9	58.9	51.9	48.5
Social science	95.0	95.9	67.7	60.7	71.9	74.9	86.8	88.8	50.8	36.7	54.7	56.0
Mathematics and science	91.8	94.6	71.4	68.8	54.4	53.2	69.5	68.7	49.7	42.4	52.7	54.1
Mathematics	92.1	94.2	74.7	71.0	58.8	59.5	75.4	74.9	50.9	34.5	50.6	51.5
Science	91.6	95.0	70.3	68.1	49.6	46.3	62.9	62.0	49.3	45.1	55.0	56.8
Education specialties[2]	93.2	95.0	58.3	59.7	74.7	68.1	79.8	73.4	54.3	44.0	49.6	51.5

[1] Calculated only for teachers who have another assignment field. Twenty-six percent of teachers reported having another assignment field in 1987-88, and 22 percent reported having another assignment field in 1990-91.

[2] Education specialities are elementary, home economics, physical, vocational, and special education.

NOTE: Certification includes standard and probationary certification by a state and full certification by an accrediting body other than the state. Those with an emergency certification are classified as not certified. See supplemental note for definition of assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987-88 and 1990-91 (Teacher Questionnaire).

Table 59-2 **Percentage of full-time public secondary school teachers with selected professional characteristics, by main assignment field and urbanicity: 1987–88 and 1990–91**

	Rural, small city		Urban		Suburban	
Main assignment field	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91
			Certified in main assignment field			
Total	**93.3**	**95.2**	**91.8**	**94.6**	**95.3**	**95.5**
English and humanities	93.8	96.0	93.3	93.9	96.1	96.4
English	93.5	96.2	91.5	94.5	96.6	97.0
Arts and foreign language	94.2	95.8	95.9	93.1	95.6	95.6
Social science	95.3	95.7	93.7	96.6	95.4	95.9
Mathematics and science	92.6	94.9	88.5	93.6	93.5	94.8
Mathematics	93.3	94.8	89.0	92.8	92.9	94.5
Science	92.0	95.0	87.9	94.6	94.1	95.0
Education specialties*	92.6	94.6	92.4	95.3	95.9	95.1
			Majored in main assignment field			
Total	**67.5**	**65.6**	**67.5**	**65.2**	**71.9**	**66.9**
English and humanities	71.7	70.3	71.2	68.3	76.5	73.7
English	61.4	64.1	62.8	63.9	67.2	69.9
Arts and foreign language	85.7	79.3	84.1	74.0	88.4	78.5
Social science	69.1	71.4	76.2	76.5	73.0	78.8
Mathematics and science	53.0	54.9	53.7	53.8	58.1	50.9
Mathematics	58.5	62.3	57.0	61.4	61.3	54.0
Science	47.0	47.2	49.9	44.2	54.4	47.1
Education specialties*	74.5	68.1	71.4	67.9	78.1	68.9
			Graduate degree in any field			
Total	**44.9**	**44.2**	**57.0**	**56.2**	**59.1**	**59.6**
English and humanities	44.6	43.1	58.0	53.6	58.2	54.3
English	45.1	44.7	57.6	54.2	56.5	54.3
Arts and foreign language	44.0	40.9	58.6	52.8	60.3	54.4
Social science	49.2	48.1	59.6	57.8	61.2	66.8
Mathematics and science	46.0	45.1	57.7	57.7	61.5	62.4
Mathematics	45.0	41.7	56.7	52.4	58.5	62.1
Science	47.0	48.6	58.9	64.4	64.9	62.8
Education specialties*	42.9	43.4	55.2	56.8	57.2	59.1

* Education specialities are elementary, home economics, physical, vocational and special education.

NOTE: Certification includes standard and probationary certification by a state and full certification by an accrediting body other than the state. Those with an emergency certification are classified as not certified. See supplemental note for definition of assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987-88 and 1990-91 (Teacher Questionnaire).

Table 59-3 Percentage of full-time public secondary school teachers with selected professional characteristics, by main assignment field and percent minority students in school: 1987–88 and 1990–91

	Less than 20 percent minority students		20 percent minority students or higher	
Main assignment field	1987-88	1990-91	1987-88	1990-91
	Certified in main assignment field			
Total	**94.5**	**95.8**	**91.6**	**94.3**
English and humanities	95.1	96.6	92.8	94.3
English	94.9	97.2	91.9	94.6
Arts and foreign language	95.2	95.7	94.3	93.9
Social science	96.6	95.6	92.6	96.5
Mathematics and science	93.2	95.6	89.8	93.3
Mathematics	93.9	95.9	89.6	92.4
Science	92.4	95.2	90.0	94.5
Education specialties*	94.3	95.4	91.8	94.4
	Majored in main assignment field			
Total	**70.7**	**68.3**	**65.3**	**63.1**
English and humanities	74.4	73.5	69.9	67.5
English	64.8	68.5	60.4	62.6
Arts and foreign language	86.2	79.5	85.4	74.9
Social science	72.9	74.6	69.9	75.4
Mathematics and science	56.8	56.8	50.7	49.3
Mathematics	61.6	64.8	54.9	54.1
Science	51.6	48.9	45.8	43.4
Education specialties*	77.2	69.9	70.7	66.4
	Graduate degree in any field			
Total	**50.1**	**52.6**	**52.9**	**51.3**
English and humanities	49.1	50.1	54.1	48.1
English	49.5	50.4	52.6	49.4
Arts and foreign language	48.5	49.8	56.6	46.1
Social science	54.7	56.1	54.3	56.5
Mathematics and science	51.3	55.1	54.1	52.3
Mathematics	49.6	51.0	53.3	50.8
Science	53.2	59.2	55.1	54.1
Education specialties*	48.3	51.5	50.8	51.4

* Education specialities are elementary, home economics, physical, vocational and special education.

NOTE: Certification includes standard and probationary certification by a state and full certification by an accrediting body other than the state. Those with an emergency certification are classified as not certified. See supplemental note for definition of assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987-88 and 1990-91 (Teacher Questionnaire).

Table 59-4 Percentage of full-time public secondary school teachers with selected professional characteristics, by main assignment field, urbanicity and percentage of students receiving free lunch: 1990–91

	Rural				Urban				Suburban			
Main assignment field	0-5	6-20	21-40	over 40	0-5	6-20	21-40	over 40	0-5	6-20	21-40	over 40
						Certified in main assignment field						
Total	**96.0**	**95.8**	**95.8**	**92.8**	**98.5**	**96.4**	**95.2**	**91.7**	**96.6**	**95.6**	**94.2**	**94.2**
English and humanities	95.6	96.8	97.1	93.4	98.9	93.1	95.1	90.8	96.4	96.0	94.3	97.5
English	95.8	98.3	97.6	92.2	98.1	94.9	94.9	92.8	97.8	96.5	98.1	96.3
Arts and foreign languages	95.3	94.9	96.5	96.2	100.0	91.1	95.3	87.9	95.2	95.4	94.7	99.0
Social science	98.7	97.8	92.6	95.6	97.6	96.3	98.5	93.9	97.1	94.7	93.5	98.4
Mathematics and science	95.9	93.7	96.5	94.2	97.1	98.9	91.3	91.4	96.7	93.9	93.4	94.7
Mathematics	92.2	94.5	96.3	94.8	96.4	99.0	90.9	89.8	97.9	93.4	92.6	92.1
Science	100.0	92.9	96.7	93.3	97.9	98.8	91.8	93.6	95.5	94.4	94.3	97.7
Education specialties*	95.8	96.0	94.5	92.6	95.5	95.5	95.5	95.2	96.3	94.6	94.3	95.6
						Majored in main assignment field						
Total	**71.6**	**68.0**	**65.3**	**59.8**	**69.5**	**70.9**	**62.0**	**62.2**	**71.0**	**66.0**	**61.9**	**62.5**
English and humanities	80.2	75.6	66.0	62.2	67.5	73.9	71.4	61.3	72.8	75.7	76.3	70.7
English	72.5	73.3	57.6	55.4	66.8	69.8	60.5	61.2	67.9	69.9	74.3	70.5
Arts and foreign languages	79.8	78.4	77.2	77.2	68.4	78.6	84.1	61.4	77.3	83.7	79.7	71.0
Social science	72.7	74.3	68.6	68.8	81.8	74.1	76.3	78.7	86.3	76.9	66.0	84.3
Mathematics and science	59.8	58.2	53.6	49.6	60.1	56.8	53.9	50.8	61.5	49.6	46.3	32.6
Mathematics	67.5	68.8	62.1	51.8	68.4	66.7	60.3	57.1	65.4	57.9	40.0	38.3
Science	51.0	48.0	45.7	46.6	49.1	45.1	45.7	42.4	57.7	41.5	53.2	26.1
Education specialties*	71.7	67.5	71.4	64.9	74.0	65.9	66.1	70.5	72.2	68.0	64.7	69.4
						Graduate degree in any field						
Total	**46.9**	**46.1**	**42.2**	**38.3**	**63.3**	**56.9**	**54.5**	**54.4**	**69.2**	**55.9**	**52.8**	**51.6**
English and humanities	56.0	46.8	37.6	37.5	62.7	52.4	54.4	49.3	61.3	48.6	53.9	49.6
English	58.1	48.7	38.8	39.1	60.6	52.7	43.4	50.0	58.7	52.1	51.9	48.1
Arts and foreign languages	53.5	44.3	36.1	34.0	65.4	52.1	51.9	48.3	63.7	43.7	57.3	51.4
Social science	62.1	47.8	46.2	42.7	54.9	59.2	60.6	56.2	75.3	63.0	59.1	65.6
Mathematics and science	46.7	47.0	44.3	41.0	55.8	60.2	60.6	54.3	73.7	56.8	56.1	59.8
Mathematics	39.2	47.6	41.5	34.7	44.4	58.8	50.0	53.8	73.8	53.1	50.4	73.1
Science	55.3	46.5	46.9	49.6	70.7	61.9	74.3	55.0	73.7	60.6	62.2	44.5
Education specialties*	49.8	45.3	44.1	36.6	56.9	56.3	59.7	56.1	69.2	56.5	53.9	51.9

* Education specialities are: elementary, home economics, physical, vocational, and special education.

NOTE: Certification includes standard and probationary certification by a state and full certification by an accrediting body other than the state. Those with an emergency certification are classified as not certified. See supplemental note for definition of assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987-88 and 1990-91 (Teacher Questionnaire).

Table 59-5 Percentage of full-time public secondary school teachers who majored or minored in specific selected academic teaching assignment fields:[1] 1990–91

Assignment field	Majored in main assignment field	Majored or minored in main assignment field	Majored or minored in other assignment field[2]
English, arts and foreign language	**29.7**	**36.5**	**25.6**
English	29.9	37.6	27.9
English/language arts	29.8	37.4	27.8
Journalism	49.4	63.4	—
Arts	29.2	34.3	17.2
Drama/theater	57.2	76.2	25.2
Art	21.4	25.1	13.7
Music	32.4	37.2	16.7
Foreign language	52.0	69.3	44.9
French	60.6	78.3	42.2
German	55.5	66.4	44.5
Latin	51.9	64.9	—
Spanish	46.9	64.8	46.1
Mathematics and science	**30.7**	**41.1**	**31.2**
Biology/life sciences	51.7	64.9	30.6
Chemistry	34.9	60.1	36.2
Geology/earth science/space science	23.4	30.4	25.9
Physics	25.5	40.5	35.9
General science	29.2	44.0	34.6
Mathematics	23.7	30.1	27.2

— Too few observations for a reliable estimate.

[1] The rule used to match assignment field to major was much stricter for this table than for the previous tables. See supplemental note for classification rules.

[2] Calculated only for teachers who have another assignment field. Twenty-two percent of teachers reported having another assignment field in 1990–91.

NOTE: Social studies was excluded because the questionnaire did not subdivide the specific categories for teaching assignment fields. See supplemental note for definition of assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher Questionnaire).

Note on definitions of certification and major/minor in assignment field

There are many ways to match a major/minor field of study with teaching assignment fields. One method is to include both the general or specific field as well as the education major/minor parallel field as a match for a specific teaching assignment. For example, a teacher who majored or minored in mathematics or mathematics education would be defined as having majored or minored in the field of mathematics. A stricter definition would exclude the mathematics teachers who majored or minored in mathematics education. This stricter definition is used for the sciences (biology, chemistry, geology/earth sciences, and physics) in all tables.

Certification in Assignment Field

Certification, as defined here, includes advanced, standard, and probationary certification by a state or full certification by an accrediting body other than a state. Teachers with a temporary certification are classified as not certified.

Teachers Excluded from Tables 59-1 through 59-4

Teachers with the following assignment fields are excluded because of difficulties in matching the assignment field with the appropriate major/minor or because, in the case of computer science, a major in the field has been possible for only a few years: basic skills and remedial education; bilingual education; computer science; English as a second language; education of the gifted; reading; religion/philosophy; and unspecified. In addition, the following fields were also excluded because they were only included in the 1990–91 questionnaire, and comparable assignment fields were not available on the 1987–88 questionnaire: American Indian studies; dance; drama/theater; military science; and journalism.

Majored or Minored in Assignment Field for Tables 59-1 through 59-4

Teachers are classified as having majored or minored in their assignment field if they have a major/minor field in the second column corresponding to their assignment in the first column. All degree levels* are considered in determining if a match has occurred.

Assignment field(s)	Major/minor field(s)
Art, music	Art, fine and applied, art education, music education
English/language arts	English (literature, letters, speech, classics), English education
Foreign language (1987–88)	Foreign languages, foreign language education
Foreign languages (1990–91): French, German, Latin, Russian, Spanish, other foreign language	French, German, Latin, Russian, Spanish, other foreign language, foreign language education
Mathematics	Mathematics, mathematics education
General and all other sciences	Biological/life sciences, science education, chemistry, physics, geology/earth sciences, other physical sciences
Biology	Biological sciences
Chemistry	Chemistry
Geology/earth sciences	Geology/earth sciences
Physics	Physics
Social studies/social sciences	Social studies/social sciences education, area and ethnic studies, psychology, public affairs and service, economics, history, political science and government, sociology, other social sciences

Special education (1987–88): Mentally retarded, emotionally disturbed, learning disabled, speech and hearing impaired, other special education	Special education (general), education of emotionally disturbed, education of mentally retarded, education of speech/hearing/vision, specific learning disabilities, other special education
Special education (1990–91): Special education (general), emotionally disturbed, mentally retarded, speech/language impaired, deaf and hard-of-hearing, visually handicapped, orthopedically impaired, mildly handicapped, severely handicapped, specific learning disabilities, other special education	Special education (general), emotionally disturbed, mentally retarded, speech/language impaired, visually handicapped, deaf and hard-of-hearing, orthopedically impaired, mildly handicapped, severely handicapped, specific learning disabilities, other special education
Vocational education (1987–88): Business education, home economics, industrial arts, vocational education	Agricultural education, home economics education, industrial arts, vocational and technical, agricultural and natural resources, architecture and natural resources, agriculture and environmental design, engineering, health professions, business and management, communications, business, commerce, distributive education
Vocational education (1990–91): Business marketing, home economics, industrial arts, accounting, agriculture, health occupations, trade and industry, technical and other vocational education	Agricultural and natural resources, business and management, architecture and environmental design, communications and journalism, engineering, agricultural educational, home economics education, industrial arts, vocational and technical, trade and industry education, industrial arts, vocational and technical, trade and industry education
Health, physical education	Health profession and occupations, physical education/health education

Teachers Excluded from Table 59-5

Teachers with the following assignment fields are excluded because of difficulties in matching the assignment field with the appropriate major/minor or because, in the case of computer science, a major in the field has been possible for only a few years: basic skills and remedial education; bilingual education; computer science; English as a second language; education of the gifted; reading; religion/philosophy; unspecified; American Indian studies; dance; and military science.

Majored or Minored in Assignment Field for Table 59-5

Teachers are classified as having majored or minored in their assignment field if the assignment field listed in the left-hand column below matches the major/minor field in the right-hand column. All degree levels are considered in determining if a match has occurred.

Assignment Field	Major/minor field(s)
Art	Art, fine and applied
Drama/theater	Drama/theater
English/language arts	English (literature, letters, speech, classics)
Journalism	Communications and journalism
Mathematics	Mathematics

Music	Music
French	French
German	German
Latin	Latin
Spanish	Spanish
Biology/life sciences	Biology/life sciences
Chemistry	Chemistry
Geology/earth sciences/space science	Geology/earth sciences
Physics	Physics
General science	Other natural sciences, science education

*Because there are fewer degree-offering categories on the 1990–91 questionnaire than on the 1987–88 questionnaire, for comparability only the following categories were used: bachelor's degree, master's degree, education specialist or professional diploma, or doctoral and first-professional degree.

Table 60-1 Percentage of full-time teachers leaving the teaching profession who gave a reason for leaving, by control of school, school level, and reason for leaving: 1991–92

Reason for leaving	Total			Public			Private		
	Total	Elementary	Secondary	Total	Elementary	Secondary	Total	Elementary	Secondary
Family or personal move	10.8	12.2	7.9	9.9	11.7	6.1	15.8	15.5	23.6
Pregnancy/child rearing	10.9	12.9	7.1	10.4	12.8	6.8	12.0	13.5	9.1
Health	3.9	5.1	1.5	3.7	5.0	1.3	4.1	5.5	3.1
Retirement	29.7	28.3	32.5	31.8	30.9	34.6	8.8	13.1	14.8
To pursue another career	6.9	5.7	9.4	6.6	4.7	8.3	16.3	11.5	18.6
For better salary or benefits	4.2	4.2	4.1	3.5	3.6	3.6	5.2	7.6	8.0
To take courses to improve career opportunities in the field of education	6.5	7.4	4.7	6.5	7.6	4.7	4.9	6.3	4.4
To take courses to improve career opportunities outside the field of education	1.4	1.2	1.7	1.3	1.1	1.7	5.7	(*)	1.7
School staffing action	9.7	8.0	13.2	10.0	7.8	14.1	12.6	8.8	5.1
To take a sabbatical or other break from teaching	2.0	1.6	2.8	2.2	1.6	3.1	2.6	1.9	(*)
Dissatisfied with teaching as a career	8.8	7.0	12.3	8.9	7.5	12.9	5.4	3.9	7.5
Other family or personal reason	5.2	6.4	2.9	5.2	5.7	2.8	6.7	10.5	4.0

* Too few responses for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 and Teacher Followup Survey, 1991-92.

Table 60-2 Percentage distribution of the change in teaching status of full-time teachers between the 1990–91 and 1991–92 school years, by control of school, age, and race/ethnicity of teacher

Age and race/ethnicity	Total			Public			Private		
	Stayers	Movers	Leavers	Stayers	Movers	Leavers	Stayers	Movers	Leavers
Total	**87.7**	**6.7**	**5.6**	**88.3**	**6.7**	**5.0**	**83.1**	**6.8**	**10.1**
Age (in years)									
Less than 25	73.8	15.4	10.8	76.1	15.8	8.1	65.5	14.1	20.5
25–29	76.9	13.2	9.9	77.9	13.2	8.9	72.4	13.1	14.5
30–39	86.2	9.0	4.9	87.0	9.2	3.9	79.9	7.6	12.5
40–49	92.5	5.3	2.2	92.9	5.3	1.8	89.2	5.2	5.7
50–59	89.6	3.5	6.9	89.7	3.5	6.9	89.5	3.5	7.0
60–64	73.3	1.4	25.2	70.6	1.5	28.0	84.7	1.3	14.0
65 or more	50.7	10.6	38.8	40.6	12.7	46.7	74.8	5.5	19.8
Race/ethnicity									
White	87.8	6.7	5.5	88.4	6.7	4.9	83.1	7.0	9.9
Black	84.7	8.7	6.7	84.8	8.9	6.3	81.3	2.8	15.9
Hispanic	89.2	5.6	5.3	90.2	5.5	4.3	80.8	6.3	12.8
Asian/Pacific Islander	86.1	6.3	7.6	86.0	7.0	7.0	86.1	1.9	12.0
American Indian/Alaskan Native	97.1	1.4	1.5	97.0	1.5	1.6	99.7	0.0	0.3

NOTE: Stayers are teachers who were still teaching in the same school in 1991-92 as they were in the previous school year; movers are teachers in the 1990-91 school year who were still teaching, but were in a different school in the 1991-92 school year; and leavers are teachers in the 1990-91 school year who left the teaching profession prior to the 1991-92 school year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 and Teacher Followup Survey, 1991-92.

Table 60-3 Change in teaching status of full-time public secondary teachers between the 1990–91 and 1991–92 school years, by main assignment field in base year

Teaching status	Academic: Science/math	Academic: Non-science/math	Vocational	Special groups	Other
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Teaching at same school	88.7	89.0	89.7	85.7	85.6
Moved to another school	6.0	5.3	4.6	9.0	9.1
Left teaching	5.3	5.7	5.8	5.3	5.3

NOTE: The components of the main assignment field categories are as follows: (1) Academic: Science/mathematics (biology, chemistry, computer science, geology, mathematics, physics, general and other sciences); (2) Academic: Non-science/mathematics (English and reading, art, foreign languages, music, religion, philosophy, social studies); (3) Special groups (special education, remedial education, bilingual education, English as a second language, education of the gifted); and (4) Other fields (physical education, general education, other).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 and Teacher Followup Survey, 1991–92.

Table 60-4 Change in teaching status of teachers between the 1990–91 and 1991–92 school years, destination of leavers, and reason for leaving, by sector, control of school, and work status

Teaching status, destination, and reason for leaving	Public			Private		
	Total	Full-time	Part-time	Total	Full-time	Part-time
Teaching status in 1991–92 compared to 1990–91						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Teaching at same school	87.6	88.3	80.3	81.1	83.1	70.2
Moved to another school	7.3	6.7	13.4	6.6	6.8	5.2
Left teaching	5.1	5.0	6.4	12.3	10.1	24.6
Destination of leavers						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Working in education	15.1	14.1	23.9	6.2	6.8	4.7
Working outside education	13.5	13.4	14.1	35.8	34.8	38.0
Attending college	6.7	6.7	6.9	11.0	12.1	8.4
Homemaking/childrearing	18.6	18.7	18.2	19.3	19.7	18.3
Retired	33.3	34.8	19.3	8.4	8.3	8.7
Other	11.8	11.3	15.6	18.8	18.0	20.8
Reason for leaving						
Retirement	30.4	31.8	18.0	8.1	8.8	6.5
Family or personal move	10.0	9.9	11.1	15.8	15.8	15.8
To pursue another career	7.8	6.6	11.8	15.9	16.3	14.8
Pregnancy/child rearing	10.9	10.4	15.6	11.4	11.9	10.0
Dissatisfied with teaching as a career	8.3	8.9	2.4	4.9	5.4	3.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey 1990–91, and Teacher Followup Survey, 1991–92.

Table 60-5 Change in teaching status of elementary school teachers between the 1990–91 and 1991–92 school years, destination of leavers, and reason for leaving, by sector, control of school, and work status

Teaching status, destination, and reason for leaving	Public			Private		
	Total	Full-time	Part-time	Total	Full-time	Part-time
Teaching status in 1991-92 compared to 1990-91						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Teaching at same school	86.6	87.3	80.4	81.2	83.0	71.7
Moved to another school	8.0	7.3	14.4	7.4	7.5	7.1
Left teaching	5.3	5.4	5.1	11.4	9.5	21.2
Destination of leavers						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Working in education	13.7	13.4	16.4	8.3	8.8	7.0
Working outside education	9.6	9.3	11.8	27.0	25.9	29.6
Attending college	7.3	7.1	9.4	6.4	8.0	2.8
Homemaking/childrearing	23.7	23.7	23.7	23.7	24.4	22.1
Retired	33.6	34.8	22.0	10.2	10.2	10.2
Other	11.2	10.6	16.8	24.2	22.4	28.3
Reason for leaving						
Retirement	29.9	30.9	20.6	11.2	13.1	6.8
Family or personal move	11.5	11.6	11.2	17.2	15.5	20.9
To pursue another career	4.7	4.7	3.8	10.1	11.5	7.0
Pregnancy/child rearing	13.6	12.8	21.1	15.0	13.5	18.4
Dissatisfied with teaching as a career	7.1	7.5	2.6	3.3	3.9	2.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey 1990-91, and Teacher Followup Survey, 1991-92.

Table 60-6 Change in teaching status of secondary school teachers between the 1990–91 and 1991–92 school years, destination of leavers, and reason for leaving, by sector, control of school, and work status

Teaching status, destination, and reason for leaving	Public			Private		
	Total	Full-time	Part-time	Total	Full-time	Part-time
Teaching status in 1991-92 compared to 1990-91						
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Teaching at same school	89.5	90.2	78.0	84.1	87.1	64.5
Moved to another school	5.6	5.3	11.2	4.9	4.4	8.1
Left teaching	4.9	4.6	10.7	11.0	8.5	27.4
Destination of leavers						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Working in education	18.1	15.3	40.5	6.7	6.2	7.5
Working outside education	18.7	20.0	8.3	35.2	37.0	31.6
Attending college	5.9	6.3	3.3	11.1	10.2	13.4
Homemaking/childrearing	11.2	11.0	13.2	13.3	11.1	17.9
Retired	33.7	35.8	17.2	20.7	17.4	27.3
Other	11.2	11.2	11.5	11.9	16.6	2.6
Reason for leaving						
Retirement	32.5	34.6	15.7	17.3	14.8	(*)
Family or personal move	5.8	6.1	3.5	19.6	23.6	11.8
To pursue another career	12.5	8.3	45.4	14.8	18.6	7.3
Pregnancy/child rearing	7.2	6.8	10.0	6.5	9.1	(*)
Dissatisfied with teaching as a career	11.6	12.9	1.7	5.0	7.5	(*)

* Too few responses for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey 1990–91, and Teacher Followup Survey, 1991–92.

Standard Error Tables

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Table S1(a) Standard errors for the first text table in *Indicator 1*

October	Age															
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1970	0.9	1.1	1.0	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.8	1.2
1980	1.2	1.4	0.7	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.3	0.3	0.6	0.8	1.1
1992	1.3	1.4	0.7	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.9	1.3
1993	1.1	1.2	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.5	0.8	1.3

October	Age															
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
1970	1.2	1.3	1.2	1.0	0.9	1.0	0.9	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.7	0.7
1980	1.1	1.1	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.6	0.6
1992	1.3	1.3	1.3	1.2	1.1	1.0	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.6
1993	1.4	1.4	1.3	1.1	1.1	1.0	0.9	0.8	0.8	0.7	0.6	0.6	0.6	0.5	0.5	0.6

Table S1(b) Standard errors for the second text table in *Indicator 1*

October	Age											
	3	4	5	16	17	18	19	20	21	22	23	24
1970	0.9	1.1	1.0	0.5	0.8	1.2	1.2	1.3	1.2	1.0	0.9	1.0
1972	0.9	1.2	0.9	0.5	0.8	1.1	1.2	1.2	1.1	1.0	0.9	0.9
1974	1.0	1.2	0.8	0.5	0.8	1.1	1.1	1.1	1.1	1.0	0.9	0.8
1976	1.1	1.3	0.7	0.6	0.8	1.1	1.1	1.1	1.1	1.0	0.9	0.9
1980	1.2	1.4	0.7	0.6	0.8	1.1	1.1	1.1	1.1	1.0	0.9	0.8
1984	1.2	1.4	0.8	0.5	0.8	1.2	1.2	1.2	1.1	1.0	0.9	0.8
1988	1.3	1.5	0.8	0.6	0.9	1.3	1.4	1.4	1.3	1.2	1.0	0.9
1990	(*)	(*)	0.7	0.6	0.9	1.3	1.3	1.3	1.3	1.2	1.1	1.0
1991	1.2	1.4	0.8	0.5	0.8	1.3	1.4	1.3	1.3	1.2	1.1	1.0
1992	1.2	1.4	0.7	0.5	0.7	1.3	1.4	1.4	1.3	1.1	1.1	1.0
1993	1.1	1.2	0.7	0.5	0.8	1.3	1.4	1.4	1.3	1.1	1.1	1.0

* Comparable data not available due to a change in survey procedures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S2 Standard errors for the text table in *Indicator 2*

October	Enrolled in preschool				Enrolled in kindergarten			
	Total	Family income			Total	Family income		
		Low	Middle	High		Low	Middle	High
1970	0.6	1.5	0.7	1.8	0.4	1.2	0.5	1.0
1971	0.6	1.6	0.7	1.9	0.5	1.4	0.5	1.2
1972	0.7	1.9	0.8	2.0	0.5	1.2	0.5	1.1
1973	0.7	1.9	0.7	2.0	0.4	1.5	0.5	1.1
1974	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1975	0.8	2.0	0.9	2.0	0.5	1.2	0.6	1.2
1976	0.8	1.7	0.9	2.2	0.5	1.5	0.6	1.3
1977	0.9	1.9	1.0	2.3	0.5	1.3	0.6	1.3
1978	0.9	2.1	1.0	2.4	0.5	1.3	0.5	1.2
1979	0.9	2.1	1.0	2.3	0.5	1.4	0.6	1.2
1980	0.9	2.1	1.1	2.3	0.5	1.3	0.6	1.2
1981	0.9	1.9	1.1	2.2	0.5	1.0	0.5	1.2
1982	0.9	2.0	1.1	2.3	0.5	1.1	0.5	1.2
1983	0.9	1.8	1.1	2.2	0.5	1.1	0.6	1.3
1984	0.9	1.6	1.1	2.2	0.4	1.1	0.6	1.0
1985	0.9	1.7	1.1	2.2	0.5	1.3	0.6	1.0
1986	0.9	1.7	1.1	2.1	0.4	1.1	0.6	1.0
1987	0.9	1.7	1.1	2.1	0.5	1.3	0.6	1.0
1988	1.0	1.9	1.2	2.2	0.5	1.0	0.6	1.0
1989	1.0	2.1	1.2	2.2	0.4	1.0	0.5	0.9
1990	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1991	1.0	1.9	1.2	2.3	0.5	1.2	0.6	1.2
1992	1.0	1.9	1.2	2.2	0.5	1.1	0.6	1.0
1993	0.9	1.8	1.2	2.1	0.5	1.2	0.6	1.0

[1] Not available.

[2] Comparable data not available due to a change in survey procedures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S3 Standard errors for the text table in *Indicator 3*

Selected characteristics	Total	Race/ethnicity			Family income				
		White	Black	Hispanic	$10,000 or less	$10,001-20,000	$20,001-35,000	$35,001-50,000	$50,001 or more
Percentage of first-graders who ever attended a center-based program	1.2	1.5	3.6	2.9	3.0	2.9	2.1	2.1	1.5
Age at which first-graders started a center-based program (for those who ever attended)									
Less than 3 years old	1.2	1.3	4.0	3.2	3.7	3.3	2.1	2.4	2.2
3 years old	1.3	1.4	3.7	4.4	4.5	2.7	2.6	2.4	2.2
4 years old	1.4	1.7	3.5	4.2	3.9	3.9	3.0	2.9	2.4
5 years old	0.7	0.9	2.0	2.0	2.0	2.2	1.5	1.6	0.9
Length of time first-graders enrolled in a center-based program (for those who ever attended)									
Less than 1 year	1.1	1.5	2.7	4.0	3.2	3.3	2.5	2.2	1.8
One year, less than 2 years	1.4	1.4	4.1	4.3	4.8	3.2	2.7	2.6	2.0
Two years or more	1.5	1.6	3.8	4.1	4.5	3.4	2.6	2.6	2.8
Length of time first-graders attended kindergarten									
One year	0.6	0.7	2.0	1.4	1.9	2.0	1.2	1.2	1.1
Two years or more	0.6	0.7	2.0	1.4	1.9	2.0	1.2	1.2	1.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table S4 Standard errors for the text table in *Indicator 4*

		Race/ethnicity			Family structure			
Skills and behaviors	Total	White	Black	Hispanic	Two biological parents	One biological parent	One biological and one step parent	Other relatives
					Percentage of children who can:			
Emerging literacy and numeracy								
Identify all colors	1.1	0.9	3.0	3.4	1.1	2.2	4.9	10.1
Recognize all letters of the alphabet	1.3	1.6	3.0	2.3	1.6	2.2	5.3	4.5
Count up to 50 or more	0.8	1.0	2.2	1.5	1.0	1.6	3.8	5.3
Write first name	1.2	1.4	3.4	3.6	1.3	3.1	5.4	9.6
Social and emotional skills and behaviors								
Often has tantrums	1.2	1.3	2.6	3.5	1.2	2.7	4.9	10.3
Afraid to speak to strangers	1.3	1.4	3.4	3.7	1.5	2.9	5.9	10.4
Fidgets a lot	1.1	1.2	3.5	3.4	1.1	2.7	5.7	10.5
Has short attention span	1.1	1.2	3.3	3.5	1.2	2.6	5.6	9.2
Can be left with a babysitter without fuss	0.8	0.8	3.0	2.6	0.7	2.0	3.3	9.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1993.

Table S5 Standard errors for the text table in *Indicator 5*

	1984			1989			1993		
Current education level, race/ethnicity, and family income level	Used a computer at school	Used a computer at home	Used a computer at home or at school	Used a computer at school	Used a computer at home	Used a computer at home or at school	Used a computer at school	Used a computer at home	Used a computer at home or at school
Total (Grades 1-12)	**0.3**	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Grades 1-6									
Total	**0.5**	**0.4**	**0.6**	**0.6**	**0.4**	**0.6**	**0.5**	**0.5**	**0.5**
White	0.7	0.5	0.7	0.7	0.6	0.7	0.6	0.6	0.6
Black	1.1	0.7	1.2	1.5	0.7	1.5	1.4	0.8	1.4
Hispanics	1.3	0.7	1.4	1.9	0.9	2.0	1.6	0.9	1.6
Low income	1.1	0.4	1.1	1.4	0.5	1.4	1.4	0.5	1.3
Middle income	0.7	0.4	0.7	0.8	0.5	0.8	0.7	0.6	0.7
High income	1.2	1.1	1.2	1.2	1.2	1.1	1.0	1.2	0.8
Grades 7-12									
Total	**0.5**	**0.4**	**0.5**	**0.6**	**0.5**	**0.6**	**0.6**	**0.5**	**0.5**
White	0.6	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.6
Black	1.3	0.7	1.4	1.8	1.1	1.8	1.7	1.0	1.6
Hispanics	2.3	1.1	2.4	3.2	2.0	3.2	2.5	1.5	2.5
Low income	1.2	0.6	1.3	1.6	0.8	1.6	1.5	0.7	1.5
Middle income	0.7	0.4	0.7	0.8	0.6	0.8	0.7	0.6	0.7
High income	1.0	0.9	1.0	1.2	1.2	1.1	1.0	1.1	0.8

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S6 Standard errors for the text table in *Indicator 6*

October	Total	Sex		Race/ethnicity			Family income		
		Male	Female	White	Black	Hispanic	Low	Middle	High
1972	0.2	0.3	0.3	0.2	0.9	1.5	1.1	0.3	0.3
1973	0.2	0.4	0.3	0.2	1.0	1.5	1.2	0.3	0.2
1974	0.2	0.4	0.3	0.3	1.0	1.4	—	—	—
1975	0.2	0.3	0.3	0.2	0.9	1.4	1.1	0.3	0.3
1976	0.2	0.3	0.3	0.3	0.8	1.1	1.1	0.3	0.2
1977	0.2	0.4	0.3	0.3	0.9	1.2	1.1	0.4	0.3
1978	0.3	0.4	0.3	0.3	1.0	1.5	1.2	0.4	0.3
1979	0.3	0.4	0.4	0.3	1.0	1.4	1.2	0.3	0.3
1980	0.2	0.4	0.3	0.3	0.9	1.4	1.1	0.3	0.3
1981	0.2	0.3	0.3	0.3	1.0	1.3	1.1	0.3	0.3
1982	0.3	0.4	0.4	0.3	1.0	1.6	1.3	0.4	0.3
1983	0.3	0.4	0.4	0.3	1.0	1.6	1.1	0.4	0.3
1984	0.3	0.4	0.4	0.3	0.9	1.7	1.2	0.4	0.3
1985	0.3	0.4	0.4	0.3	1.1	2.3	1.3	0.4	0.3
1986	0.3	0.4	0.4	0.3	0.9	2.4	1.1	0.4	0.3
1987	0.3	0.4	0.4	0.3	1.0	1.7	1.1	0.4	0.2
1988	0.4	0.6	0.6	0.4	1.3	4.6	1.8	0.5	0.4
1989	0.4	0.6	0.6	0.4	1.6	3.9	1.6	0.6	0.4
1990	0.3	0.5	0.5	0.4	1.1	2.3	1.4	0.4	0.3
1991	0.3	0.5	0.5	0.4	1.2	2.2	1.4	0.4	0.3
1992	0.4	0.5	0.5	0.4	1.1	2.2	1.4	0.5	0.4
1993	0.4	0.5	0.5	0.4	1.2	2.0	1.6	0.5	0.4

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys. U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1993.*

Table S8 Standard errors for the text table in *Indicator 8*

Type and control of institution and family income of dependent students	Tuition and fees	Total cost	Grants	Total aid	Net cost	Ratios	
						Grants to tuition and fees	Net cost to total cost
Public 4-year institutions							
Dependent, full-time students	$85	$105	$25	$47	$136	1	2
Low income	60	107	53	91	120	3	2
Lower middle	76	109	44	85	128	2	2
Upper middle	82	106	32	60	140	1	2
High income	107	122	26	41	150	1	2
Private, not-for-profit 4-year institutions							
Dependent, full-time students	403	407	111	171	434	2	3
Low income	781	786	424	690	403	8	4
Lower middle	387	395	229	301	362	3	2
Upper middle	303	310	211	273	349	2	2
High income	358	363	95	137	446	1	3
Public 2-year institutions							
Dependent, full-time students	55	82	33	49	153	4	3
Low income	59	106	92	113	245	12	4
Lower middle	73	107	55	82	165	6	3
Upper middle	105	125	36	50	278	3	4
High income	129	142	26	43	210	2	4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study: 1993.

Table S9 Standard errors for the text table in *Indicator 9*

October	Type of college			Family income			Race/ethnicity		
	Total	2-year	4-year	Low	Middle	High	White	Black	Hispanic
1972	0.9	—	—	3.4	1.7	2.2	1.4	4.6	(*)
1973	0.9	0.7	0.9	3.2	1.7	2.1	1.4	4.3	9.2
1974	0.9	0.7	0.9	—	—	—	1.4	4.6	(*)
1975	0.9	0.7	0.8	3.6	1.7	2.1	1.4	4.7	(*)
1976	0.9	0.7	0.9	4.2	1.8	2.1	1.4	4.8	(*)
1977	1.0	0.7	0.9	3.5	1.8	2.0	1.4	4.7	7.9
1978	1.0	0.7	0.9	3.7	1.7	2.0	1.4	4.5	(*)
1979	1.0	0.7	0.9	3.8	1.7	2.0	1.4	4.7	(*)
1980	1.0	0.8	0.9	3.5	1.8	2.1	1.4	4.4	8.7
1981	1.0	0.8	0.9	3.9	1.7	2.1	1.4	4.4	(*)
1982	1.2	0.9	1.1	3.8	1.8	2.1	1.5	4.3	(*)
1983	1.2	1.0	1.1	4.0	1.9	2.2	1.6	4.3	8.9
1984	1.2	0.9	1.2	3.6	1.9	2.1	1.5	4.2	(*)
1985	1.3	1.0	1.2	4.1	2.0	2.2	1.6	4.8	(*)
1986	1.2	1.0	1.2	3.6	2.0	2.3	1.6	4.4	8.8
1987	1.3	1.0	1.2	3.9	2.1	2.2	1.7	4.8	(*)
1988	1.8	1.5	1.7	4.4	2.1	2.5	1.8	4.9	(*)
1989	1.8	1.5	1.8	4.6	2.3	2.6	1.9	5.3	10.5
1990	1.6	1.3	1.6	4.8	2.1	2.5	1.8	5.1	(*)
1991	1.6	1.4	1.6	4.5	2.2	2.4	1.8	5.2	(*)
1992	1.6	1.4	1.6	4.4	2.2	2.3	1.8	4.9	8.4
1993	1.6	1.4	1.6	4.6	2.1	2.5	1.9	5.3	(*)

— Not available.

* Due to the small sample size for the Hispanic category, 3-year averages were calculated. The 3-year average for 1992 is the average percentage of graduates enrolled in college in 1991, 1992, and 1993.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S10 Standard errors for the text table in *Indicator 10*

	Percentage in each activity category							
	Students			Nonstudents				
Student characteristics	Total	2-year school	4-year school pursuing a bachelor's degree	Total	Working	Unemployed	Not in the labor force	Unemployment rate of nonstudents
All	**1.6**	**1.1**	**1.2**	**1.6**	**1.9**	**1.0**	**1.0**	**1.4**
Age in 1991								
15–20	4.0	3.0	3.2	3.9	4.1	2.0	1.9	3.5
21–24	3.6	2.3	3.1	3.6	3.9	2.2	1.8	3.3
25–29	3.3	2.2	2.2	3.2	4.2	2.5	2.5	3.2
30–35	4.1	3.2	1.5	4.1	4.7	2.5	2.2	3.2
36 and over	2.5	1.6	1.6	2.4	3.7	2.0	2.7	2.5
Race/ethnicity								
White	1.8	1.3	1.4	1.8	2.1	1.1	1.1	1.5
Black	6.1	4.4	4.6	5.2	6.0	3.7	3.0	5.1
Hispanic	8.5	4.6	6.8	5.3	6.4	3.3	4.4	4.8
Years of education completed by October 1991								
Less than a full year of college	2.4	1.9	1.5	2.4	3.5	2.1	2.4	2.6
1 year of college	3.3	2.8	2.0	3.2	3.6	2.3	1.7	3.3
2 years of college	3.2	1.6	2.8	3.2	3.4	1.5	1.4	2.3
3 years of college or more	4.1	2.3	2.7	4.1	4.8	1.0	3.2	1.4
Sex								
Male	2.7	1.8	2.1	2.5	2.7	1.5	1.0	2.2
Female	2.0	1.4	1.5	1.7	2.1	1.1	1.3	1.5

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, October 1991.

Table S12 Standard errors for the text table in *Indicator 12*

	In the last 12 months	At any time while on current job	
Characteristic	1991	1983	1991
Total	1.0	0.4	0.4
Sex			
Male	1.4	0.6	0.5
Female	1.2	0.7	0.6
Work status			
Full-time	1.2	—	—
Part-time	1.4	—	—
Age			
20–24	2.3	1.2	1.3
25–34	1.7	0.8	0.7
35–44	2.2	0.9	0.7
45–54	2.5	1.1	0.9
55–64	3.3	1.3	1.3
65 and over	4.8	2.9	2.6
Educational attainment			
High school graduate or less	1.1	0.6	0.6
Some postsecondary education	1.7	0.9	0.8
College graduate	2.3	0.8	0.6
Occupation			
Executive, professional, technical	2.0	0.7	0.6
Sales and administrative support	1.2	0.8	0.7
Service	2.2	1.3	1.1
Farming, forestry, fishing	2.8	2.8	2.8
Precision production, craft and repair	2.6	1.3	1.2
Operators, fabricators, laborers	2.3	1.2	1.2

— Not available.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *How Workers Get Their Training: A 1991 Update*, Bulletin 2407, August 1992. U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991.

Table S13(a) Standard errors for the first text table in *Indicator 13*

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	1.0	0.9	1.2	1.1	1.0	1.2	1.0	0.9	1.3
1975	0.7	0.8	0.8	0.8	0.8	1.0	0.8	0.9	1.0
1980	1.0	0.9	1.2	1.1	1.1	1.3	1.1	0.9	1.2
1984	0.7	0.5	0.6	0.8	0.6	0.6	0.8	0.6	0.8
1988	1.1	1.0	1.0	1.4	1.3	1.5	1.3	1.0	1.5
1990	1.2	0.8	1.1	1.7	1.1	1.6	1.2	1.1	1.2
1992	0.9	1.2	1.1	1.3	1.7	1.6	0.9	1.2	1.1

Table S13(b) Standard errors for the second text table in *Indicator 13*

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	0.9	0.7	1.0	1.7	1.2	1.7	—	—	—
1975	0.7	0.7	0.6	1.2	1.2	2.0	2.2	3.0	3.6
1980	0.8	0.7	0.9	1.8	1.5	1.8	2.3	2.0	2.7
1984	0.8	0.6	0.7	1.1	1.0	1.0	2.1	1.7	2.2
1988	1.4	1.1	1.2	2.4	2.4	2.4	3.5	3.5	4.3
1990	1.3	0.9	1.2	2.9	2.2	2.3	2.3	2.3	3.6
1992	1.0	1.2	1.4	2.2	2.3	2.1	3.1	3.5	3.7

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992,* 1994.

Table S14(a) Standard errors for the first text table in *Indicator 14*

	Total			Male			Female		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	1.5	2.0	1.6	2.8	2.3	1.4	3.1	2.4	2.5
1988	1.6	1.3	1.3	2.3	1.5	2.0	2.0	1.7	1.2
1990	1.5	1.2	1.0	1.9	1.5	1.6	2.2	1.3	1.5
1992	1.5	1.3	1.4	1.7	1.9	1.2	1.7	1.3	2.0

Table S14(b) Standard errors for the second text table in *Indicator 14*

	White			Black			Hispanic		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	1.9	2.1	1.8	5.0	5.7	3.6	5.8	6.4	6.6
1988	1.9	1.3	1.3	4.7	3.5	2.9	3.5	2.5	4.4
1990	2.0	1.6	1.2	5.4	2.3	2.3	4.1	2.8	2.6
1992	1.7	1.3	1.2	3.8	4.0	3.2	3.6	2.2	3.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992,* 1994.

Table S15(a) Standard errors for the first text table in *Indicator 15*

Year	Total			Male			Female		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	0.8	0.8	1.1	0.7	1.3	1.2	1.1	1.1	1.1
1978	0.8	1.1	1.0	0.7	1.3	1.0	1.0	1.1	1.0
1982	1.1	1.1	0.9	1.2	1.4	1.0	1.2	1.1	1.0
1986	1.0	1.2	0.9	1.1	1.1	1.2	1.2	1.5	1.0
1990	0.8	0.9	0.9	0.9	1.2	1.1	1.1	0.9	1.1
1992	0.8	0.9	0.9	1.0	1.1	1.1	1.0	1.0	1.1

Table S15(b) Standard errors for the second text table in *Indicator 15*

Year	White			Black			Hispanic		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1973	1.0	0.9	1.1	1.8	1.9	1.3	2.4	2.2	2.2
1978	0.9	0.8	0.9	1.1	1.9	1.3	2.2	2.0	2.3
1982	1.1	1.0	0.9	1.6	1.6	1.2	1.3	1.7	1.8
1986	1.1	1.3	1.0	1.6	2.3	2.1	2.1	2.9	2.9
1990	0.8	1.1	1.0	2.2	2.3	2.8	2.1	1.8	2.9
1992	0.8	0.9	0.8	2.0	1.9	2.2	2.3	1.8	2.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992,* 1994.

Table S16(a) Standard errors for the first text table in *Indicator 16*

Year	Total			Male			Female		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1973	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1977	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1982	1.8	1.3	1.2	2.3	1.5	1.4	2.0	1.3	1.3
1986	1.2	1.4	1.4	1.4	1.6	1.9	1.4	1.5	1.5
1990	0.8	0.9	1.1	1.1	1.1	1.3	1.0	1.1	1.6
1992	1.0	0.8	1.3	1.2	1.2	1.7	1.0	1.0	1.5

Table S16(b) Standard errors for the second text table in *Indicator 16*

Year	White			Black			Hispanic		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	0.9	0.8	0.8	1.9	2.4	1.5	—	—	—
1973	0.9	0.8	0.8	1.9	2.4	1.5	—	—	—
1977	0.9	0.8	0.7	1.8	2.4	1.5	2.7	1.9	2.2
1982	1.9	1.1	1.0	3.0	1.3	1.7	4.2	3.9	2.3
1986	1.2	1.4	1.7	1.9	2.5	2.9	3.1	3.1	3.8
1990	0.8	0.9	1.1	2.0	3.1	4.5	2.2	2.6	4.4
1992	1.0	1.0	1.3	2.7	2.7	3.2	2.8	2.6	5.6

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Trends in Academic Progress: Achievement of U.S. Students in Science, 1969 to 1992; Mathematics, 1973 to 1992; Reading, 1971 to 1992; Writing, 1984 to 1992,* 1994.

Table S17 Standard errors for the text table in *Indicator 17*

Larger countries	Average overall score			Average domain scale score			Non-school language spoken at home		School language spoken at home	
	Total	Male	Female	Narrative	Expository	Documents	Percentage of students	Average score	Percentage of students	Average score
					Age 9					
United States	2.8	3.6	3.4	3.1	2.6	2.7	—	12.3	—	2.5
France	4.0	5.7	5.6	4.1	4.1	3.9	—	12.2	—	4.2
Italy	4.3	5.2	5.1	4.0	4.0	4.9	—	6.9	—	4.1
Spain	2.5	3.4	3.3	2.4	2.3	2.7	—	6.2	—	2.5
West Germany	3.0	3.9	3.8	2.8	2.9	3.2	—	8.1	—	2.9
					Age 14					
France	4.3	5.0	4.2	4.2	4.3	4.2	—	16.1	—	3.3
United States	4.8	6.3	5.9	4.9	5.6	4.0	—	21.0	—	4.4
West Germany	4.4	4.4	4.4	4.9	4.5	3.9	—	10.7	—	3.2
Italy	3.4	4.0	3.9	3.6	3.2	3.3	—	5.1	—	3.3
Spain	2.5	3.3	3.1	3.0	2.6	2.0	—	6.8	—	2.4

— Not available.

SOURCE: International Association for the Evaluation of Educational Achievement, Study of Reading Literacy, *How in the World Do Students Read?*, 1992.

Table S18 Standard errors for the text table in *Indicator 18*

Larger countries	Average proficiency score			Percentile scores						
	Total	Male	Female	1st	5th	10th	Median	90th	95th	99th
					Age 9					
South Korea	1.8	2	2.4	7.5	6.8	1.9	1.4	1.8	3.5	2.5
Taiwan	2.2	2.4	2.7	5.7	4.4	3.3	1.8	4.8	3.1	1.1
Soviet Union	3.3	3.2	3.8	5.9	4.1	5.5	3.9	2.4	5.4	5.9
Spain	2.9	3.8	3	1.6	4.9	4.1	3.4	3.1	3.3	2.7
Canada	1.5	1.9	1.7	8.8	3.2	2	1.8	2.2	2.5	5.9
United States	3.2	3.6	3.7	4.5	2.9	5.7	2.9	5	5.7	1.5
					Age 13					
Taiwan	2	3.1	2.5	9.9	7.3	4.9	1.7	3.5	9	2.4
South Korea	1.9	2.7	2.6	11.8	4.6	3.9	1.4	7.7	3	3.3
Soviet Union	2.2	2.8	1.9	5.5	4.5	3.5	2	1.5	3.6	5
France	1.8	2.1	2.1	4	2.4	1.8	0.8	3.8	4.1	8.3
Canada	1.4	1.8	1.6	12.9	3.8	1.9	1.4	2.1	2.8	3.2
Spain	1.8	2.5	1.9	18.4	2	1.9	3	2.9	1.9	4.2
United States	2.9	3.1	3.3	8.4	5.8	5.7	3.2	2.7	5.7	10.1

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Table S19 Standard errors for the text table in *Indicator 19*

Larger countries	Average proficiency score			Percentile scores						
	Total	Male	Female	1st	5th	10th	Median	90th	95th	99th
					Age 9					
South Korea	2.3	3.2	2.3	8.7	5.6	3.3	2.5	1.7	3.1	5.2
Taiwan	2.7	3.0	3.8	9.2	5.3	4.1	4.1	5.4	5.6	2.9
United States	4.6	6.2	4.2	2.3	9.8	6.1	2.9	2.7	3.2	6.0
Canada	1.9	2.3	2.3	3.5	5.5	1.8	1.9	1.0	4.0	1.3
Soviet Union	5.1	5.6	5.3	6.1	7.0	6.4	6.3	8.6	10.9	8.4
Spain	3.6	4.5	3.7	4.2	10.6	4.6	3.5	3.4	2.9	0.7
					Age 13					
South Korea	2.3	3.0	3.2	16.5	8.1	5.1	2.7	3.9	2.6	4.7
Taiwan	1.9	2.8	2.5	11.4	3.3	3.3	2.4	2.7	2.9	6.5
Soviet Union	3.5	3.9	3.6	8.8	9.6	4.9	3.1	5.5	3.9	3.8
Canada	1.6	2.1	1.5	3.2	1.1	3.1	1.1	2.2	1.7	6.6
France	2.5	3.0	3.0	1.9	6	4.8	1.8	3.3	2.3	6.0
Spain	2.3	3.0	2.9	4.2	1.4	2.8	2.7	3.4	2.9	4.8
United States	4.4	5.6	3.6	8.4	6.5	7.5	4.0	4.9	3.9	8.0

SOURCE: Educational Testing Service, International Assessment of Educational Progress, 1992.

Table S22 Standard errors for the text table in *Indicator 22*

March	High school graduates				High school graduates completing:							
					1 or more years of college				4 or more years of college			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	0.5	0.5	2.2	2.9	0.7	0.7	2.6	3.8	0.6	0.6	1.8	2.5
1973	0.5	0.5	2.0	2.6	0.6	0.7	2.5	3.3	0.5	0.6	1.8	2.2
1975	0.4	0.4	1.8	2.5	0.6	0.7	2.3	3.3	0.5	0.6	1.7	2.5
1977	0.4	0.4	1.7	2.5	0.6	0.6	2.2	3.3	0.5	0.6	1.7	2.1
1979	0.4	0.4	1.6	2.3	0.6	0.6	2.1	3.1	0.5	0.6	1.6	2.1
1981	0.4	0.3	1.5	2.1	0.6	0.6	2.0	2.7	0.5	0.5	1.4	1.8
1983	0.4	0.4	1.4	2.2	0.6	0.6	2.0	2.8	0.5	0.6	1.5	2.2
1985	0.4	0.4	1.4	2.1	0.6	0.6	1.9	2.8	0.5	0.6	1.4	2.1
1987	0.4	0.4	1.3	2.0	0.6	0.6	1.9	2.6	0.5	0.6	1.3	1.8
1989	0.4	0.4	1.4	2.2	0.6	0.7	2.0	2.9	0.5	0.6	1.5	2.2
1991	0.4	0.4	1.4	2.0	0.6	0.7	2.0	2.6	0.5	0.6	1.3	2.0
	Diploma or equivalency certificate				Some college or more				Bachelor's degree or more			
1992	0.4	0.4	1.4	2.0	0.6	0.7	2.0	2.6	0.5	0.6	1.4	1.9
1993	0.4	0.4	1.4	1.9	0.6	0.7	2.0	2.5	0.5	0.6	1.5	1.7
1994	0.4	0.4	1.3	1.8	0.6	0.7	2.0	2.3	0.5	0.7	1.5	1.6

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S24 Standard errors for the text table in *Indicator 24*

	English		Mathematics		Science		Four core subjects	
District characteristics	Years	Percent with 4 or more	Years	Percent with 3 or more	Years	Percent with 3 or more	Years	Percent with 13 or more
Total	**0.0**	**0.6**	**0.0**	**0.6**	**0.0**	**0.5**	**0.0**	**0.4**
Spending per pupil in school district								
Less than $3,500	0.0	1.0	0.0	1.1	0.0	0.9	0.0	0.8
$3,500 to $4,499	0.0	1.0	0.0	1.0	0.0	0.8	0.0	0.8
$4,500 to $5,499	0.0	1.1	0.0	1.5	0.0	1.2	0.1	1.3
$5,500 or more	0.0	0.9	0.0	1.1	0.0	0.8	0.0	0.8
Residents' median household income								
Lowest 25 percent	0.0	0.8	0.0	1.0	0.0	1.0	0.0	0.9
Middle 50 percent	0.0	0.7	0.0	0.6	0.0	0.5	0.0	0.5
Highest 25 percent	0.0	1.3	0.0	1.5	0.0	0.9	0.0	1.0
Residents who are high school graduates								
Less than 65.0 percent	0.0	0.7	0.0	1.4	0.0	1.0	0.0	1.1
65.0 to 84.9 percent	0.0	0.7	0.0	0.7	0.0	0.6	0.0	0.5
85.0 percent or more	0.0	1.5	0.0	1.5	0.0	0.9	0.1	0.8
Residents who are minority								
Less than 5.0 percent	0.0	1.1	0.0	0.9	0.0	0.8	0.0	0.7
5.0 to 19.9 percent	0.0	1.2	0.0	1.0	0.0	0.8	0.0	0.8
20.0 to 49.9 percent	0.0	1.3	0.0	1.7	0.0	1.2	0.0	1.0
50.0 percent or more	0.0	1.2	0.0	1.3	0.0	0.8	0.0	1.0
Households receiving public assistance								
Less than 5.0 percent	0.0	0.8	0.0	0.9	0.0	0.7	0.0	0.7
5.0 to 9.9 percent	0.0	1.0	0.0	1.0	0.0	0.8	0.0	0.9
10.0 percent or more	0.0	0.9	0.0	1.2	0.0	1.0	0.0	0.9
Urbanicity of district								
Central city	0.0	0.9	0.0	0.6	0.0	0.4	0.0	0.4
Suburban/other urban	0.0	0.9	0.0	1.2	0.0	0.9	0.0	0.9
Rural/small town	0.0	0.9	0.0	1.1	0.0	1.1	0.1	1.1

NOTE: Standard errors 0.0 are less than 0.05.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990-91 (Teacher Demand and Shortage Questionnaire); Common Core of Data 1989-90; and 1990 Census School District Special Tabulation, Summary File Set 1 Extract.

Table S25 Standard errors for the text table in *Indicator 25*

Characteristic	1982	1987	1990	1992	Percentage point change 1982–1987	1987–1990	1990–1992	1982–1992
Total	**0.6**	**1.2**	**1.7**	**1.3**	**1.4**	**2.1**	**2.1**	**1.4**
Sex								
Male	0.8	1.4	1.9	1.8	1.6	2.3	2.6	2.0
Female	0.7	1.3	1.7	1.4	1.5	2.1	2.2	1.6
Race/ethnicity								
White	0.7	1.5	1.8	1.5	1.6	2.3	2.3	1.6
Black	1.3	3.0	3.8	3.5	3.2	4.9	5.2	3.7
Hispanic	0.9	2.2	2.7	2.4	2.3	3.4	3.6	2.6
Asian/Pacific Islander	2.5	4.4	3.0	3.6	5.0	5.3	4.7	4.4
American Indian/Alaskan Native	2.2	2.5	3.6	6.1	3.3	4.4	7.1	6.5
Urbanicity								
Urban	1.5	—	—	2.2	—	—	—	2.7
Suburban	0.9	—	—	2.1	—	—	—	2.2
Rural	1.1	—	—	2.0	—	—	—	2.3
Control of school								
Public	0.6	1.2	1.8	1.2	1.4	2.2	2.2	1.4
Private	4.3	4.6	3.4	4.5	6.3	5.7	5.6	6.2
Parents' highest education level								
Didn't finish high school	0.8	—	—	2.8	—	—	—	2.9
High school graduate	1.8	—	—	2.0	—	—	—	2.7
Some college	1.0	—	—	1.4	—	—	—	1.7
College graduate	1.7	—	—	2.5	—	—	—	3.0

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Transcript Study, 1987 and 1990 NAEP High School Transcript Studies, and the National Education Longitudinal Study Transcripts, 1992.

Table S26 Standard errors for the text table in *Indicator 26*

Mathematics and science courses	1982	1987	1990	1992	Percentage point change 1982–1987	1987–1990	1990–1992	1982–1992
Mathematics								
Remedial/below grade level math	1.0	1.3	1.6	0.8	1.6	2.0	1.8	1.3
Algebra I	0.7	—	—	0.4	—	—	—	0.8
Algebra II	1.0	1.8	1.4	1.1	2.0	2.3	1.8	1.5
Geometry	1.0	0.9	1.3	1.0	1.4	1.6	1.6	1.4
Trigonometry	0.6	1.5	1.3	1.0	1.6	2.0	1.6	1.2
Analysis/pre-calculus	0.5	0.9	1.0	1.0	1.0	1.3	1.4	1.1
Calculus	0.4	0.4	0.5	0.8	0.6	0.6	0.9	0.9
Algebra II and geometry	0.9	1.7	1.4	1.2	1.9	2.2	1.8	1.5
Algebra II, geometry, trigonometry, and calculus	0.1	0.4	0.3	0.2	0.4	0.5	0.4	0.3
Science								
Biology	0.8	0.9	0.9	0.5	1.2	1.3	1.0	1.0
Chemistry	0.8	1.1	1.3	1.1	1.4	1.7	1.7	1.4
Physics	0.6	0.9	0.8	1.0	1.0	1.2	1.3	1.2
Biology and chemistry	0.8	1.1	1.3	1.1	1.4	1.7	1.7	1.4
Biology, chemistry, and physics	0.5	0.8	0.7	1.0	0.9	1.1	1.2	1.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Transcript Study; 1987 and 1990 NAEP High School Transcript Studies; and National Education Longitudunal Study Transcripts, 1992.

Table S28 Standard errors for the text table in *Indicator 28*

October	Recent high school graduates not enrolled in college				Recent school dropouts			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1973	1.6	1.7	5.6	(*)	2.5	3.1	6.6	(*)
1974	1.6	1.7	6.3	(*)	2.5	3.1	6.1	(*)
1975	1.7	1.8	6.0	(*)	2.6	3.2	6.0	11.0
1976	1.7	1.8	6.3	(*)	2.6	3.1	6.0	(*)
1977	1.6	1.7	6.5	10.8	2.5	3.0	6.6	(*)
1978	1.6	1.6	6.1	10.4	2.5	3.1	6.6	11.4
1979	1.6	1.7	6.4	9.9	2.5	3.2	6.2	(*)
1980	1.7	1.8	5.7	(*)	2.6	3.3	6.0	10.7
1981	1.8	1.9	5.5	(*)	2.6	3.5	4.3	10.9
1982	1.9	2.1	5.1	10.6	2.8	3.7	5.9	(*)
1983	2.0	2.1	5.4	(*)	3.1	4.1	7.2	(*)
1984	2.0	2.2	5.4	10.3	3.1	3.9	7.5	11.0
1985	2.2	2.4	6.1	(*)	3.0	4.1	7.2	11.6
1986	2.0	2.3	5.6	11.4	3.2	4.3	9.4	10.3
1987	2.1	2.3	7.0	10.7	3.3	4.2	7.4	(*)
1988	2.2	2.4	6.6	15.4	3.5	4.4	7.4	13.5
1989	2.4	2.5	7.7	15.8	3.9	5.0	7.9	(*)
1990	2.4	2.7	6.9	(*)	3.9	5.1	9.4	(*)
1991	2.7	3.1	6.7	(*)	3.9	5.3	8.3	(*)
1992	2.5	2.9	6.6	12.7	3.8	5.1	(*)	12.2
1993	2.6	2.8	7.9	13.7	4.0	5.0	9.3	(*)

* Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S29 Standard errors for the text table in *Indicator 29*

Age	Males					Females				
	Total	Grades 9 to 11	High school diploma	Some college	Bachelor's degree	Total	Grades 9 to 11	High school diploma	Some college	Bachelor's degree
20-24	0.8	2.4	1.2	1.2	2.1	0.8	2.3	1.5	1.1	1.6
25-29	0.6	2.2	1.0	1.0	1.0	0.7	2.5	1.3	1.3	1.2
30-34	0.5	2.2	0.9	1.0	0.7	0.7	2.4	1.2	1.2	1.3
35-39	0.5	2.4	0.9	1.0	0.6	0.7	2.8	1.2	1.2	1.2
40-44	0.6	3.1	1.2	0.9	0.8	0.7	3.1	1.2	1.2	1.1
45-49	0.6	2.9	1.2	1.1	0.7	0.7	3.0	1.3	1.4	1.2
50-54	0.7	3.3	1.3	1.5	0.9	0.9	3.0	1.5	1.7	1.7
55-59	1.0	3.0	1.7	2.1	1.7	1.0	2.8	1.6	2.2	2.4
60-64	1.1	3.1	2.0	2.7	2.4	1.0	2.4	1.7	2.5	3.0

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Survey, 1994.

Table S30 Standard errors for the text table in *Indicator 30*

Year	9-11 years of school		13-15 years of school		16 or more years of school	
	Male	Female	Male	Female	Male	Female
1970	0.02	0.05	0.02	0.06	0.02	0.06
1972	0.02	0.03	0.02	0.05	0.02	0.05
1974	0.02	0.05	0.02	0.05	0.02	0.06
1976	0.02	0.04	0.02	0.05	0.02	0.05
1978	0.03	0.02	0.03	0.04	0.03	0.05
1980	0.02	0.04	0.02	0.04	0.02	0.04
1982	0.02	0.04	0.02	0.03	0.02	0.05
1984	0.03	0.04	0.04	0.03	0.05	0.04
1986	0.02	0.04	0.02	0.04	0.03	0.04
1988	0.03	0.03	0.02	0.04	0.04	0.03
1990	0.03	0.04	0.03	0.03	0.03	0.04
1991	0.03	0.05	0.03	0.03	0.02	0.04
1992	0.03	0.04	0.03	0.04	0.03	0.05
1993	0.03	0.03	0.02	0.04	0.03	0.05

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S32 Standard errors for the text table in *Indicator 32*

Year	Years of schooling completed											
	All persons						White		Black		Hispanic	
	Total	Less than 9 years	9-11 years	12 years	13-15 years	16 years or more	9-11 years	12 years	9-11 years	12 years	9-11 years	12 years
1972	0.2	0.9	0.6	0.2	0.3	0.1	0.6	0.2	2.2	1.4	3.2	1.5
1973	0.2	0.9	0.6	0.2	0.3	0.1	0.6	0.2	2.2	1.4	2.9	1.4
1974	0.2	1.0	0.7	0.2	0.2	0.1	0.6	0.2	2.4	1.3	3.9	1.7
1975	0.1	1.1	0.7	0.2	0.3	0.2	0.7	0.2	2.4	1.2	3.5	1.5
1976	0.2	1.0	0.7	0.2	0.2	0.1	0.7	0.2	2.6	1.1	3.1	1.4
1977	0.2	1.0	0.7	0.2	0.2	0.1	0.7	0.2	2.4	1.2	3.4	1.6
1978	0.1	1.0	0.8	0.2	0.2	0.1	0.7	0.2	2.5	1.3	3.2	1.8
1979	0.1	1.0	0.8	0.2	0.3	0.1	0.8	0.2	2.4	1.2	3.5	1.8
1980	0.2	1.1	0.8	0.2	0.2	0.1	0.8	0.2	2.4	1.2	3.2	1.5
1981	0.2	1.1	0.8	0.2	0.3	0.1	0.8	0.2	2.4	1.2	3.3	1.4
1982	0.1	1.1	0.8	0.2	0.3	0.1	0.9	0.2	2.7	1.3	3.1	1.3
1983	0.2	1.0	0.8	0.2	0.2	0.1	0.9	0.2	2.5	1.2	3.1	1.4
1984	0.2	1.1	0.9	0.2	0.3	0.1	0.9	0.2	2.5	1.1	2.7	1.2
1985	0.1	1.2	0.9	0.2	0.2	0.1	0.9	0.2	2.6	1.1	2.1	1.1
1986	0.1	1.1	0.8	0.2	0.2	0.1	0.9	0.2	2.7	1.0	2.2	1.0
1987	0.2	1.1	0.8	0.2	0.2	0.1	0.9	0.2	2.4	1.0	2.0	1.1
1988	0.1	1.3	0.8	0.2	0.3	0.1	0.8	0.2	2.7	1.1	2.3	1.2
1989	0.1	1.1	0.8	0.2	0.2	0.1	0.9	0.2	2.6	1.0	2.2	1.0
1990	0.2	1.0	0.8	0.2	0.2	0.1	0.8	0.2	2.7	1.0	2.0	0.9
1991	0.2	1.0	0.8	0.2	0.2	0.1	0.9	0.2	2.6	1.1	1.9	1.0
1992	0.2	1.2	0.9	0.3	0.3	0.1	1.0	0.3	2.5	1.1	2.1	1.1

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S33 Standard errors for the text table in *Indicator 33*

Characteristics	Percent who gave and volunteered	Percent who volunteered	Average hours/week	Percent who were generous volunteers	Percent who gave	Percent of income contributed	Percent who were generous givers	Percent who were generous givers and volunteers	Percent who either gave or volunteered
Total	**1.5**	**1.5**	**1.5**	**1.0**	**1.5**	**1.0**	**1.0**	**1.0**	**1.0**
No postsecondary education									
Total	2.0	2.0	3.0	1.0	2.0	2.0	1.0	1.0	2.0
Sex									
Male	3.0	3.0	4.5	2.0	3.0	3.0	2.0	2.0	3.0
Female	2.5	2.5	3.0	2.0	2.5	3.0	1.5	1.5	2.5
Employment status									
Full-time	3.0	3.0	4.5	2.0	3.0	3.0	2.0	2.0	3.0
Part-time	0.5	7.5	4.5	6.5	7.0	4.5	4.5	4.5	6.5
Not employed or retired	2.5	2.5	4.5	1.5	2.5	3.0	1.5	1.5	2.5
Annual income									
Less than $20,000	2.5	3.0	4.5	2.0	3.0	3.0	2.0	2.0	3.0
$20,000–$49,999	3.0	3.0	4.5	2.5	3.0	3.0	2.0	2.0	2.5
$50,000 or more	7.5	7.5	4.5	4.5	6.0	4.5	4.5	4.5	6.0
Some postsecondary education									
Total	2.0	2.0	2.0	1.5	1.0	1.5	1.5	1.0	1.0
Sex									
Male	2.5	2.5	3.0	2.0	1.5	2.0	2.0	2.0	1.5
Female	3.0	3.0	3.0	2.5	2.0	2.0	2.0	2.0	2.0
Employment status									
Full-time	2.5	2.5	2.0	2.0	1.5	2.0	2.0	1.5	1.5
Part-time	6.5	6.5	4.5	6.5	4.5	4.5	6.0	4.5	4.5
Not employed or retired	4.5	4.5	4.5	3.5	3.0	3.0	3.5	3.0	3.0
Annual income									
Less than $20,000	4.5	4.5	4.5	3.5	4.0	4.5	3.5	3.0	3.5
$20,000–$49,999	3.0	3.0	3.0	2.5	2.0	3.0	2.0	2.0	2.0
$50,000 or more	3.0	3.0	3.0	3.0	2.0	2.0	2.5	2.0	2.0

SOURCE: Biennial Gallup Survey on Giving and Volunteering (1992), sponsored by the Independent Sector.

Table S40 Standard errors for the text table in *Indicator 40*

	Black					Hispanic				
	Public schools					Public schools				
Year	Total	Central cities	Other metropolitan	Non-metropolitan	Private schools	Total	Central cities	Other metropolitan	Non-metropolitan	Private schools
1970	0.3	0.8	0.3	0.5	0.5	—	—	—	—	—
1971	0.3	0.8	0.3	0.5	0.5	—	—	—	—	—
1972	0.3	0.7	0.3	0.5	0.5	0.2	0.6	0.3	0.4	0.6
1973	0.3	0.7	0.3	0.5	0.6	0.2	0.6	0.3	0.4	0.6
1974	0.3	0.7	0.3	0.5	0.5	0.3	0.6	0.3	0.4	0.8
1975	0.3	0.7	0.3	0.5	0.5	0.3	0.6	0.3	0.4	0.7
1976	0.3	0.8	0.4	0.5	0.6	0.3	0.6	0.4	0.4	0.7
1977	0.3	0.8	0.3	0.5	0.6	0.3	0.6	0.4	0.3	0.8
1978	0.3	0.8	0.4	0.5	0.6	0.3	0.7	0.4	0.3	0.7
1979	0.3	0.8	0.4	0.5	0.7	0.3	0.7	0.4	0.4	0.7
1980	—	—	—	—	—	—	—	—	—	—
1981	0.3	0.8	0.4	0.5	0.6	0.3	0.8	0.4	0.4	0.8
1982	0.3	0.9	0.4	0.6	0.7	0.3	0.8	0.4	0.5	0.9
1983	0.3	0.9	0.4	0.6	0.7	0.3	0.8	0.5	0.5	0.8
1984	0.3	—	—	—	0.7	0.3	—	—	—	0.8
1985	0.3	0.9	0.4	0.6	0.6	0.4	1.0	0.5	0.5	0.9
1986	0.3	0.8	0.4	0.6	0.7	0.4	0.9	0.5	0.6	0.9
1987	0.3	0.8	0.4	0.6	0.7	0.4	0.9	0.5	0.6	1.0
1988	0.4	0.9	0.4	0.6	0.9	0.4	1.0	0.6	0.7	1.1
1989	0.4	0.9	0.4	0.6	0.9	0.4	1.1	0.6	0.7	1.1
1990	0.4	0.8	0.4	0.6	0.8	0.4	0.9	0.6	0.6	1.0
1991	0.4	0.8	0.4	0.6	0.8	0.4	0.9	0.5	0.6	1.0
1992	0.3	0.8	0.4	0.5	0.8	0.4	0.9	0.6	0.6	1.0
1993	0.3	0.8	0.4	0.5	0.9	0.4	0.9	0.5	0.6	1.0

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment ....," various years and October Current Population Surveys.

Table S41 Standard errors for the text table in *Indicator 41*

School characteristics	Bilingual education	English as a second language	Remedial reading	Remedial math	Programs for the handi-capped	Programs for the gifted and talented	Diagnostic and pre-scriptive services	Extended Day	Medical health care services
					Public schools				
All fourth-grade students	1.2	1.0	0.8	1.1	0.6	1.1	1.1	1.1	1.2
Central city	2.1	1.6	1.6	2.0	1.2	1.8	1.8	2.1	2.0
Urban fringe/large town	2.2	2.1	2.1	2.2	1.5	1.8	1.5	2.2	2.3
Rural/small town	1.9	1.8	1.0	1.6	0.7	1.5	1.7	1.6	1.6
Percent of students receiving free or reduced-price lunch									
0–5	2.6	4.7	4.5	4.5	2.4	2.9	2.5	4.0	4.9
6–20	1.0	2.6	2.4	2.3	1.6	1.9	2.2	2.5	2.8
21-40	2.0	2.6	1.6	2.3	1.2	2.0	1.9	2.4	2.6
41-100	2.2	1.8	1.1	2.0	1.1	1.5	1.8	1.8	2.4
					Private schools				
All fourth-grade students	0.5	1.0	1.1	1.1	1.1	0.8	1.3	1.2	0.9
Central city	0.8	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.5
Urban fringe/large town	0.9	1.3	2.5	2.3	1.7	1.6	2.4	2.1	1.8
Rural/small town	0.7	1.2	2.7	2.6	2.6	1.8	2.5	2.1	2.5
Percent of students receiving free or reduced-price lunch									
0–5	1.1	2.6	2.8	3.6	3.4	3.0	2.6	3.1	2.9
6–20	0.8	1.9	2.4	2.4	2.7	2.8	3.2	3.8	3.8
21-40	1.6	2.4	4.3	5.0	5.8	5.2	4.4	6.2	4.9
41-100	3.1	5.1	4.0	5.1	4.1	4.0	5.8	5.2	5.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Table S43 Standard errors for the text table in *Indicator 43*

Characteristic	Extracurricular activity									
	Any activity	Varsity sports	Intramural sports	School music group	School play or musical	Yearbook or newspaper	Academic clubs	Student government	School service clubs	School vocational clubs
Total	**0.6**	**0.7**	**0.6**	**0.5**	**0.5**	**0.6**	**0.6**	**0.5**	**0.5**	**0.6**
Sex										
Male	0.8	1.0	0.9	0.6	0.7	0.8	0.8	0.6	0.5	0.7
Female	0.7	0.9	0.7	0.8	0.6	0.8	0.8	0.7	0.7	0.8
Race/ethnicity										
White	0.6	0.8	0.7	0.6	0.6	0.7	0.7	0.5	0.6	0.7
Black	2.4	2.5	2.0	1.5	1.6	1.5	1.6	2.1	1.3	1.7
Hispanic	1.4	1.8	1.6	1.4	1.1	1.5	1.5	1.7	1.4	1.4
Asian/Pacific Islander	1.9	2.3	2.3	1.7	1.5	1.6	2.3	1.5	1.9	1.3
American Indian/Alaskan Native	3.0	5.1	4.1	4.6	5.5	4.0	6.0	4.8	3.4	4.3
SES quartile										
Lowest	1.2	1.4	1.2	1.0	0.8	1.0	1.0	0.8	0.7	1.3
Middle	0.8	0.9	0.8	0.7	0.6	0.7	0.8	0.7	0.6	0.8
Highest	0.9	1.4	1.2	1.0	1.0	1.2	1.1	0.9	1.1	0.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Student Survey, 1992.

Table S44 Standard errors for the text table in *Indicator 44*

Reason school personnel contacted parents	Total	Percent receiving free or reduced-price lunch				Control of school		
		0–5 percent	6–20 percent	21–40 percent	41 percent and over	Public	Catholic	Other private
Discuss:								
Student's academic performance	0.7	1.7	1.3	1.6	2.0	0.8	2.7	3.9
Student's academic program	0.7	1.6	1.2	1.5	1.7	0.7	3.0	4.1
Student's post-high school plans	0.8	1.6	1.0	1.2	1.6	0.7	3.2	3.7
Student's attendance	0.7	2.1	1.4	1.5	1.9	0.8	1.8	4.3
Student's behavior	0.6	1.5	1.0	1.3	1.6	0.6	1.7	2.7
Request parent volunteer time at school	0.8	1.9	1.4	1.5	1.9	0.8	2.4	2.4
Inform parents how to help student with school work	0.6	1.4	1.0	1.1	1.4	0.6	2.6	4.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Second Follow-up, Parent Survey, 1992.

Table S45(a) Standard errors for the first text table in *Indicator 45*

Urbanicity	Control of school	Total		Public school level				Public high school % of students eligible for free or reduced-price lunch			
		Public	Private	Elementary	Middle	High	Combined el/sec	0–5	6–20	21--40	41–100
Total	**0.07**	**0.06**	**0.23**	**0.08**	**0.17**	**0.22**	**0.35**	**0.36**	**0.19**	**0.25**	**0.51**
Central city	0.16	0.15	0.27	0.17	0.44	0.55	1.12	1.89	0.63	0.95	1.33
Urban fringe/large town	0.13	0.14	0.34	0.18	0.35	0.28	1.05	0.61	0.50	0.65	1.10
Rural/small town	0.10	0.09	0.47	0.11	0.19	0.31	0.35	0.25	0.16	0.27	0.47

Table S45(b) Standard errors for the second text table in *Indicator 45*

Urbanicity	Control of school	Total		Public school level				Public high school % of students eligible for free or reduced-price lunch			
		Public	Private	Elementary	Middle	High	Combined el/sec	0–5	6–20	21--40	41–100
						Absenteeism					
Total	**0.27**	**0.29**	**0.25**	**0.29**	**0.80**	**0.86**	**1.15**	**1.31**	**1.26**	**1.74**	**1.87**
Central city	0.65	0.76	0.36	0.90	1.74	1.92	3.96	5.92	2.89	3.33	3.64
Urban fringe/large town	0.52	0.59	0.37	0.52	1.27	1.49	3.35	1.73	2.40	4.39	6.27
Rural/small town	0.35	0.36	0.61	0.34	1.08	0.82	0.87	1.79	1.29	1.91	1.69
						Tardiness					
Total	**0.22**	**0.23**	**0.26**	**0.34**	**0.75**	**0.56**	**1.29**	**0.96**	**1.02**	**1.54**	**1.90**
Central city	0.59	0.69	0.40	0.84	1.54	1.46	3.91	4.36	2.63	2.50	3.49
Urban fringe/large town	0.40	0.44	0.52	0.58	1.14	1.01	3.53	1.48	1.52	2.87	4.98
Rural/small town	0.26	0.26	0.75	0.31	0.79	0.51	1.02	1.16	0.84	1.64	1.30

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 (Teacher and School Questionnaires).

Table S46 Standard errors for the text table in *Indicator 46*

Background characteristics in 1988	Number of school changes after entering first grade and before the middle of eighth grade		Number of school changes between the middle of eighth grade and spring 1992	
	Less than 2	2 or more	Less than 2	2 or more
Total	**0.79**	**0.79**	**0.58**	**0.58**
Race/ethnicity				
White	0.88	0.88	0.59	0.59
Black	2.61	2.61	2.60	2.60
Hispanic	2.01	2.01	1.48	1.48
Asian/Pacific Islander	2.83	2.83	1.64	1.64
American Indian/Alaskan Native	5.13	5.13	5.93	5.93
Family composition				
Mother and father	0.75	0.75	0.48	0.48
Mother only	1.51	1.51	1.66	1.66
Mother and other male	2.43	2.43	1.76	1.76
Father only/Other	3.95	3.95	4.62	4.62
Father and other female	4.88	4.88	3.65	3.65
Annual family income				
Under $10,000	2.37	2.37	2.04	2.04
$10,000-19,999	1.71	1.71	1.35	1.35
$20,000-34,999	1.27	1.27	1.02	1.02
$35,000-49,999	1.54	1.54	0.88	0.88
$50,000 or more	1.51	1.51	1.58	1.58

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988) and Second Follow-up (1992) Surveys.

Table S47 Standard errors for the text table in *Indicator 47*

Year	Had something stolen		Property deliberately damaged		Injured with a weapon		Threatened with a weapon		Injured without a weapon		Threatened without a weapon	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
1976	1.2	3.3	1.1	3.3	0.6	2.2	0.8	2.6	0.9	2.6	1.0	2.9
1977	1.2	2.9	1.1	2.5	0.6	1.9	0.8	2.5	0.8	1.9	1.0	2.5
1978	1.1	2.9	1.1	2.5	0.4	1.4	0.7	2.2	0.7	2.2	0.9	2.4
1979	1.2	3.3	1.0	2.9	0.5	2.2	0.8	2.6	0.8	2.2	1.0	2.9
1980	1.2	2.9	1.2	2.5	0.5	1.9	0.8	2.5	0.8	2.2	1.0	2.5
1981	1.2	2.6	1.1	2.6	0.5	2.0	0.9	2.3	0.9	2.3	0.9	2.4
1982	1.1	2.9	1.1	3.1	0.5	1.4	0.9	2.2	0.9	1.9	0.9	2.5
1983	1.2	2.9	1.1	2.9	0.6	1.4	0.8	2.2	0.9	2.2	0.9	2.5
1984	1.2	2.9	1.0	2.9	0.5	1.4	0.8	2.2	0.8	2.2	1.0	2.5
1985	1.2	2.9	1.2	2.9	0.6	1.9	0.8	2.5	0.9	2.5	1.0	2.9
1986	1.3	3.3	1.2	2.9	0.6	1.6	0.9	2.6	0.9	2.6	1.1	2.9
1987	1.3	3.3	1.2	3.1	0.6	1.6	0.9	2.7	0.9	2.6	1.1	2.9
1988	1.3	3.1	1.2	2.9	0.6	1.9	0.9	2.5	0.9	2.2	1.0	2.9
1989	1.3	3.6	1.3	3.3	0.6	2.2	0.8	2.9	1.0	2.9	1.1	2.9
1990	1.4	3.6	1.3	3.3	0.6	2.2	0.8	2.9	1.0	2.2	1.1	2.9
1991	1.4	3.6	1.3	2.9	0.6	2.2	1.0	2.9	1.0	2.6	1.3	3.3
1992	1.4	3.6	1.4	3.3	0.7	1.6	0.9	2.9	1.1	2.6	1.4	2.9
1993	1.6	3.6	1.4	3.3	0.7	1.6	1.1	2.9	0.9	2.2	1.3	2.9

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future Study*.

Table S48(a) Standard errors for the first text table in *Indicator 48*

Type of drug	1975	1978	1981	1984	1987	1990	1993	1994
Alcohol	0.9	0.7	0.8	0.8	0.8	1.0	1.0	—
Marijuana	1.2	0.9	1.0	1.0	0.9	0.9	0.9	0.9
Any illicit drug other than marijuana	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.6
Stimulants	0.5	0.5	0.7	0.6	0.5	0.5	0.5	0.5
Inhalents	—	0.3	0.3	0.3	0.3	0.3	0.3	0.5
LSD	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Cocaine	0.4	0.5	0.5	0.5	0.5	0.3	0.3	0.3
Sedatives	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3
Tranquilizers	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3

— Not available.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table S48(b) Standard errors for the second text table in *Indicator 48*

	8th-graders in 1988			10th-graders in 1990			12th-graders in 1992		
Control of school	Ever	Once or twice	More than twice	Ever	Once or twice	More than twice	Ever	Once or twice	More than twice
All students	**0.3**	**0.2**	**0.1**	**0.6**	**0.4**	**0.3**	**0.5**	**0.3**	**0.3**
Public	0.3	0.2	0.2	0.6	0.5	0.3	0.5	0.3	0.4
Catholic	0.4	0.4	0.2	1.9	1.7	0.8	1.7	1.3	1.0
Private, other religious affiliation	0.5	0.4	0.3	1.1	0.5	1.1	1.1	1.0	0.3
Private, no religious affiliation	0.7	0.6	0.5	1.6	1.1	1.2	2.5	0.9	2.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Base Year (1988), First Follow-up (1990), and Second Follow-up (1992) Student Surveys.

Table S50 Standard errors for the text table in *Indicator 50*

Faculty rank	Fall 1987[1]					Fall 1992				
	Type of institution and course division					Type of institution and course division				
	Total	Research	Doctoral	Comprehensive	Liberal arts	Total	Research	Doctoral	Comprehensive	Liberal arts
	Undergraduate, lower division courses					Undergraduate, lower division courses				
Full professor	2.3	6.5	5.2	2.6	4.5	1.4	5.1	2.6	1.6	2.4
Associate professor	2.7	8.1	4.9	2.2	3.0	1.4	4.6	2.2	1.2	2.3
Assistant professor	1.6	3.4	3.0	2.0	5.5	1.1	2.0	2.8	1.5	2.7
Instructor	1.3	1.2	3.5	2.0	2.8	1.3	3.3	2.5	1.9	2.4
Lecturer	1.4	3.8	1.5	2.0	1.8	1.0	3.6	1.7	0.9	1.4
Other	0.5	0.5	0.8	0.7	2.9	0.6	0.1	0.4	0.4	4.0
	Undergraduate, upper division courses					Undergraduate, upper division courses				
Full professor	2.9	6.9	5.5	3.7	7.0	5.6	10.6	9.1	8.6	5.2
Associate professor	2.8	7.5	4.8	3.6	8.1	3.2	8.9	4.9	3.7	5.3
Assistant professor	4.7	6.3	9.6	5.3	16.2	7.7	4.4	11.3	11.6	4.1
Instructor	1.6	0.8	4.9	2.3	2.0	1.3	2.1	4.2	1.6	3.1
Lecturer	1.0	2.5	3.7	1.3	[2]0.0	1.4	3.4	0.3	2.1	0.4
Other	0.3	[2]0.0	[2]0.0	0.3	1.9	1.2	0.1	1.8	0.4	9.0
	Graduate courses					Graduate courses				
Full professor	10.3	6.7	17.0	14.2	(3)	11.3	12.9	13.4	11.9	(3)
Associate professor	7.9	12.9	17.1	9.3	(3)	7.7	3.2	7.3	12.0	(3)
Assistant professor	6.6	11.8	12.6	8.7	(3)	7.4	2.7	19.0	9.1	(3)
Instructor	10.6	[2]0.0	0.9	14.8	(3)	0.7	0.1	3.8	0.6	(3)
Lecturer	[2]0.0	0.1	[2]0.0	0.1	(3)	2.8	9.7	0.2	1.1	(3)
Other	[2]0.0	0.1	[2]0.0	[2]0.0	(3)	0.1	[2]0.0	[2]0.0	[2]0.0	(3)

[1] Revised from previously published figures.

[2] Standard error is less than 0.05 and is rounded to 0.0

[3] Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1988 and 1993.

Table S51 Standard errors for text table in *Indicator 51*

October	All students			White			Black			Hispanic		
	Total	20 or more hours	35 or more hours	Total	20 or more hours	35 or more hours	Total	20 or more hours	35 or more hours	Total	20 or more hours	35 or more hours
1970	0.9	0.7	0.4	1.0	0.7	0.4	3.4	2.3	1.1	—	—	—
1971	0.9	0.7	0.4	1.0	0.7	0.4	2.8	1.8	1.2	—	—	—
1972	0.9	0.7	0.3	1.0	0.7	0.4	3.1	2.5	1.8	7.8	6.4	2.5
1973	0.9	0.7	0.4	1.0	0.8	0.4	3.5	2.7	1.8	7.0	5.0	2.6
1974	0.9	0.7	0.4	1.0	0.8	0.4	3.2	2.5	1.6	6.3	4.8	3.3
1975	0.9	0.7	0.4	1.0	0.7	0.4	2.9	2.3	1.5	6.1	4.8	2.6
1976	0.9	0.7	0.4	1.0	0.8	0.4	2.7	2.1	1.3	5.9	4.4	2.1
1977	0.9	0.7	0.4	1.0	0.8	0.4	2.7	2.1	1.5	6.4	5.4	2.7
1978	0.9	0.7	0.4	1.0	0.8	0.4	2.8	2.1	1.4	7.2	6.4	3.8
1979	0.9	0.7	0.4	1.0	0.8	0.4	2.9	2.3	1.5	6.0	5.0	2.8
1980	0.9	0.7	0.4	1.0	0.8	0.4	2.9	2.2	1.5	6.2	5.6	2.6
1981	0.9	0.7	0.4	1.0	0.8	0.4	2.8	2.1	1.3	5.7	4.8	2.8
1982	0.9	0.7	0.3	1.0	0.8	0.4	3.1	2.3	1.4	6.3	4.7	1.7
1983	0.9	0.7	0.4	1.0	0.8	0.4	3.1	2.6	1.0	6.1	5.2	3.0
1984	0.9	0.8	0.4	1.0	0.9	0.4	3.0	2.4	1.2	5.9	4.9	2.5
1985	0.9	0.8	0.4	1.0	0.9	0.4	3.1	2.6	1.6	6.5	5.6	2.4
1986	0.9	0.8	0.4	1.1	0.9	0.5	2.9	2.4	1.3	6.3	5.3	1.8
1987	0.9	0.8	0.4	1.1	0.9	0.4	3.2	2.5	1.4	6.4	5.9	3.4
1988	1.0	0.9	0.4	1.1	1.0	0.5	3.5	2.9	1.3	7.2	6.7	3.7
1989	1.0	0.9	0.5	1.1	1.0	0.5	3.2	2.8	1.4	7.3	6.9	3.5
1990	1.0	0.8	0.4	1.1	0.9	0.5	3.2	2.6	1.1	6.6	6.0	3.3
1991	0.9	0.8	0.4	1.1	0.9	0.5	3.2	2.7	1.3	6.0	5.6	2.5
1992	0.9	0.8	0.4	1.1	0.9	0.5	3.1	2.7	1.4	5.8	5.3	2.5
1993	1.0	0.8	0.4	1.1	1.0	0.5	3.1	2.6	1.3	5.6	4.8	2.7

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S58 Standard errors for text table in *Indicator 58*

Occupation	Average prose literacy scores	Average annual earnings in 1991	Average weekly wage last week	Average weeks worked in 1991	Average age	Percentage with graduate degrees	Percentage female
All bachelor's degree recipients	**1.1**	**$881**	**25**	**0.3**	**0.2**	**1.0**	**1.0**
Scientists	5.2	1,855	42	1.0	0.7	4.3	2.8
Lawyers and judges	6.8	7,139	555	1.2	1.0	3.6	5.6
Accountants and auditors	4.5	2,879	64	0.6	1.2	5.9	5.2
Private sector executives and managers	2.9	2,481	46	0.3	0.5	2.7	2.9
Postsecondary teachers	7.2	8,190	153	1.2	1.3	3.9	5.6
Engineers	6.1	2,386	45	0.7	1.5	4.6	1.7
Physicians	10.2	14,685	325	1.3	2.2	0.0	6.0
Teachers	**2.8**	**1,126**	**20**	**0.8**	**0.6**	**2.9**	**2.8**
Writers and artists	7.6	3,266	73	2.1	1.2	7.5	8.0
Social workers	6.7	2,208	44	1.0	1.6	8.1	6.8
Sales representatives	4.9	2,323	79	1.1	1.1	2.9	3.7
Education administrators	8.6	4,995	103	0.9	1.6	5.0	9.2
Registered nurses	5.1	2,414	51	1.2	1.8	4.6	5.1
Sales supervisors and proprietors	6.2	4,694	109	0.6	1.6	5.5	5.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table S59 Standard errors for the text table in *Indicator 59*

	Certified in main assignment field		Certified in other assignment field		Majored or minored in main assignment field		Graduate degree in any field	
Assignment field	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91	1987-88	1990-91
All teachers	**0.2**	**0.2**	**1.1**	**1.0**	**0.4**	**0.5**	**0.4**	**0.6**
English and humanities	0.4	0.5	2.0	2.2	0.7	0.6	0.8	1.1
English	0.5	0.5	2.8	3.2	0.9	1.0	1.2	1.2
Arts and foreign languages	0.6	0.8	3.2	3.6	0.8	0.8	1.4	1.6
Social science	0.5	0.6	4.0	4.1	0.8	0.8	1.2	1.4
Mathematics and science	0.5	0.4	1.6	1.7	0.8	1.0	0.7	0.8
Mathematics	0.7	0.8	2.9	4.0	1.0	1.4	1.2	1.2
Science	0.6	0.6	1.6	1.9	1.2	1.5	1.0	1.2
Education specialties	0.4	0.3	2.0	1.9	0.5	0.8	0.6	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987-88 and 1990-91 (Teacher Questionnaire).

Table S60 Standard errors for the text table in *Indicator 60*

Teaching status, destination, and reason for leaving	Public				Private			
		Full-time teachers				Full-time teachers		
	Total	Total	Elementary	Secondary	Total	Total	Elementary	Secondary
Teaching status in 1991–92 compared to 1990–91								
Teaching at same school	0.5	0.5	0.6	0.9	0.9	1.1	1.2	2.0
Moved to another school	0.3	0.3	0.4	0.6	0.5	0.6	0.8	0.9
Left teaching	0.4	0.4	0.5	0.6	0.8	0.8	1.1	1.4
Destination of leavers								
Working in education	2.1	2.2	2.8	4.3	1.5	2.1	4.1	3.1
Working outside education	2.0	2.2	1.9	5.3	3.7	4.1	6.3	7.2
Attending college	1.6	1.7	2.7	1.9	2.2	3.2	2.4	3.8
Homemaking/childrearing	3.2	3.6	4.9	4.1	2.1	2.6	4.1	4.2
Retired	2.6	2.7	3.9	3.7	1.9	2.0	3.2	8.2
Other	2.2	2.4	2.8	3.4	3.0	3.0	4.8	8.6
Reason for leaving								
Retirement	2.6	2.8	3.8	0.7	1.8	2.2	3.7	7.9
Family or personal move	2.5	2.8	4.0	3.7	2.1	2.5	3.7	10.2
To pursue another career	1.6	1.3	1.4	1.7	2.5	3.1	4.6	5.5
Pregnancy/child rearing	2.3	2.6	4.3	1.9	1.9	2.3	2.7	3.9
Dissatisfied with teaching as a career	2.0	2.2	2.3	5.2	1.4	1.9	2.9	4.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1990–91 and Teacher Followup Survey, 1991–92.

Sources of Data

The information presented in this report was obtained from many sources, including federal and state agencies, private research organizations, and professional associations. The data were collected using many research methods including surveys of a universe (such as all school districts) or of a sample, compilations of administrative records, and statistical projections. Users of *The Condition of Education* should take particular care when comparing data from different sources. Differences in procedures, timing, phrasing of questions, interviewer training, and so forth mean that the results are not strictly comparable. Following the general discussion of data accuracy below, descriptions of the information sources and data collection methods are presented, grouped by sponsoring organization. More extensive documentation of procedures used in one survey as compared to another does not imply more problems with the data, only that more information is available.

Unless otherwise noted, all comparisons cited in the text were tested for significance using *t*-tests and are significant at the .05 level. However, when multiple comparisons are cited, a Bonferroni adjustment to the significance level was made. When other tests were used, they are described in a note on the indicator page or in the supplemental note for the indicator.

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. In addition to such sampling errors, all surveys, both universe and sample, are subject to design, reporting, and processing errors and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

The estimated standard error of a statistic is a measure of the variation due to sampling and can be used to examine the precision obtained in a particular sample. The sample estimate and an estimate of its standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. If all possible samples were selected, each of these surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average value from all possible samples; 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples; and 99 percent of all intervals from 2.5 standard errors below the estimate to 2.5 standard errors above the estimate would include the average value of all possible samples. These intervals are called 90 percent, 95 percent, and 99 percent confidence intervals, respectively.

To illustrate this further, consider the text table for *Indicator 1* and the standard error table S1 for estimates of standard errors from Census Current Population Surveys. For the 1992 estimate of the percentage of 3-year-olds enrolled in school (27.7 percent), table S1 shows a standard error of 1.2. Therefore, we can construct a 95 percent confidence interval from 25.3 to 30.1 (27.7 ± 2 x 1.2). If this procedure were followed for every possible sample, about 95 percent of the intervals would include the average for all possible samples.

Standard errors can help assess how valid a comparison between two estimates might be. The standard error of a difference between two sample estimates is approximately equal to the square root of the sum of the squared standard errors of the estimates. The standard error (se) of the difference between sample estimate "a" and sample estimate "b" (if "a" and "b" are approximately independent) is:

$$se_{a-b} = \sqrt{se_a^2 + se_b^2}$$

It should be noted that most of the standard errors presented in the indicators and in the original documents are approximations. That is, to derive estimates of standard errors that would be applicable to a wide variety of items and that could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

The preceding discussion on sampling variability was directed toward a situation concerning one or two estimates. Determining the accuracy of statistical projections is more difficult. In general, the further away the projection date is from the date of the actual data being used for the projection, the greater the possible error in the projection. If, for instance, annual data from 1977 to 1990 are being used to project enrollment in elementary and secondary education, the further beyond 1990 one projects, the more variability in the projection. One will be less sure of the 1996 enrollment projection than of the 1991 projection. A detailed discussion of the projections methodology is contained in *Projections of Education Statistics to 2004* (National Center for Education Statistics, 1993).

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors can arise in various ways: from respondents or interviewers interpreting questions differently, from respondents estimating the values that they provide, from partial to total nonresponse, from imputation or reweighting to adjust for nonresponse, from inability or unwillingness on the part of respondents to provide correct information, from recording and keying errors, or from overcoverage or undercoverage of the target universe.

Sampling and nonsampling error combine to yield total survey error. Since estimating the magnitude of nonsampling errors would require special experiments or access to independent data, these magnitudes are seldom available. In almost all situations, the sampling error represents an underestimate of the total survey error, and thus an overestimate of the precision of the survey estimates.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both total and partial. An adjustment made for either type of nonresponse is often referred to as an imputation—substitution of the "average" questionnaire response for the nonresponse. Imputations are usually made separately within various groups of sample members, which have similar survey characteristics. Imputation for item nonresponse is usually made by substituting for a missing item the response to that item of a respondent having characteristics that are similar to those of the nonrespondent.

In editions prior to 1992 of *The Condition of Education*, when reporting race-specific data from the Current Population Survey, Hispanics were usually included among whites and blacks (i.e., "Hispanics may be of any race."). Beginning with the 1992 edition, racial/ethnic data from the Current Population Survey excludes Hispanics from whites and blacks (e.g., whites are non-Hispanic whites and blacks are non-Hispanic blacks).

Unless otherwise noted, all dollar values in this volume are expressed in constant 1993 dollars. The Consumer Price Index (CPI) is used to convert current dollars for earlier years to 1993 dollars. The CPI index for calendar year 1994 is 148.4.

How to obtain standard errors for the supplemental tables

To obtain estimates of standard errors for the statistics in the supplemental tables write to:

Editor, *The Condition of Education, 1995*
(Standard Errors Request)
National Center for Education Statistics
555 New Jersey Avenue NW, Room 400D
Washington, DC 20208-5650

Please specify WK1 or ASCII format on 3.5 or 5.25 inch disks.

Adult Literacy in America

The National Adult Literacy Survey was created as a new measure of literacy and funded by the Department of Education and by 12 states. It is the third and largest assessment of adult literacy funded by the federal government. The aim of the survey is to profile the English literacy of adults in the United States based on their performance across a wide array of tasks that reflect the types of materials and demands they encounter in their daily lives.

To gather the information on adults' literacy skills, trained staff interviewed nearly 13,600 individuals age 16 and older during the first 8 months of 1992. These participants had been randomly selected to represent the adult population in the country as a whole. Black and Hispanic households were oversampled to ensure reliable estimates of literacy proficiencies and to permit analyses of the performance of these smaller subgroups. In addition, some 1,100 inmates from 80 federal and state prisons were interviewed to gather information on the proficiencies of the prison population. In total, over 26,000 adults were surveyed.

Each survey participant was asked to spend approximately an hour responding to a series of diverse literacy tasks as well as questions about his or her demographic characteristics, educational background, reading practices, and other areas related to literacy. Proficiency estimates for these scales were based on responses to the assessment tasks and reflect varying degrees of skill in prose, document, and quantitative literacy.

Questions concerning the National Adult Literacy Survey can be directed to:

Andrew Kolstad
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

Beginning Postsecondary Student Longitudinal Study

The Beginning Postsecondary Student Longitudinal Study (BPS) provides information concerning persistence, progress, and attainment from initial time of entry into postsecondary education through leaving school and entering the workforce. BPS includes traditional and nontraditional (e.g., older) students and is representative of all beginning students in postsecondary education. BPS follows first-time, beginning students for at least 6 years at 2-year intervals, collecting student data, postsecondary transcripts, and financial aid reports. By starting with a cohort that has already entered postsecondary education, and following it for 6 years, BPS will be able to determine to what extent, if any, students who start postsecondary education later differ in their progress, persistence, and attainment.

Common Core of Data

The National Center for Education Statistics (NCES) uses the Common Core of Data (CCD) survey to acquire and maintain statistical data on the 50 states, the District of Columbia, and five outlying areas from the universe of state-level education agencies. Information about staff and students is collected annually at the school, LEA (local education agency or school district), and state levels. Information about revenues and expenditures is also collected at the state level, and NCES joins the Bureau of Census in collecting school district finance data. Data are collected for a particular school year (October 1 through September 30) via survey instruments sent to the states by October 15 of the subsequent school year. States have one year in which to modify the data originally submitted.

Since the CCD is a universe survey, the CCD information presented in this edition of *The Condition of Education* is not subject to sampling error. However, nonsampling error could come from two sources—nonreturn and inaccurate reporting. Almost all of the states submit all CCD survey instruments each year, but there are many delays in submitting data and the submissions are sometimes incomplete.

Understandably, when 56 education agencies compile and submit data for over 85,000 public schools and approximately 15,000 local school districts, misreporting can occur. Typically, this results from varying interpretation of NCES definitions and differing recordkeeping systems. NCES attempts to minimize these errors by working closely with the state education agency representatives in the National Forum on Education Statistics and its state CCD coordinators.

The state education agencies report data to NCES from data collected and edited in the states' regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that those items will also be available for the subsequent CCD survey. Over time this has meant fewer missing data cells in each state's response, reducing the need to impute data.

NCES subjects data from the education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the education agencies for verification. NCES-prepared state summary forms are returned to the state education agencies for verification. States are also given an opportunity to revise their state-level aggregates from the previous survey cycle.

Questions concerning the Common Core of Data can be directed to:

John Sietsema
Elementary and Secondary Education
Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5651

Federal Support for Education

NCES prepares an annual compilation of Federal Funds for Education. Data for U.S. Department of Education program totals come from the *Budget of the U.S. Government*. Budget offices of other federal agencies provide information for all other federal program support except for research funds, which are obligations reported by the National Science Foundation in *Federal Funds for Research and Development*, fiscal years 1965 to 1992. Some data are estimated, based on reports from the federal agencies contacted and the *Budget of the U.S. Government*.

Except for money spent on research, outlays were used to report program funds to the extent possible. Some tables are obligations as noted in the title of the table. Some federal program funds not commonly recognized as education assistance are also included in the totals reported. For example, portions of federal funds paid to some states and counties as shared revenues resulting from the sale of timber and minerals from public lands have been estimated as funds used for education purposes. Parts of the funds received by states (in 1980) and localities under the General Revenue Sharing Program are also included, as are portions of federal funds received by the District of Columbia. The share of these funds allocated to education was assumed equal to the share of general funds expended for elementary and secondary education by states and localities in the same year as reported by the U.S. Bureau of the Census in its annual publication, *Governmental Finances*.

All state intergovernmental expenditures for education were assumed earmarked for elementary/secondary education. Contributions of parent governments of dependent school systems to their public schools amounted to approximately 9 percent of local government revenues and local government revenue sharing in each year. Therefore, 9 percent of local government revenue-sharing funds were assumed allocated each fiscal year to elementary and secondary education. Parent government contributions to public school systems were obtained from the U.S. Bureau of the Census, *Finances of Public School Systems*.

The amount of state revenue-sharing funds allocated for postsecondary education in 1980 was assumed to be 13 percent, the proportion of direct state expenditures for institutions of higher education reported in *Governmental Finances* for that year.

The share of federal funds for the District of Columbia assigned to education was assumed equal to the share of the city's general fund expenditures for each level of education.

For the job training programs conducted by the Department of Labor, only estimated sums spent on classroom training have been reported as educational program support.

During the 1970s, the Office of Management and Budget (OMB) prepared annual reports on federal education program support. These were published in *Budget of the U. S. Government [Special Analyses]*. The information presented in this report is not, however, a continuation of the OMB series. A number of differences in the two series should be noted. OMB required all federal agencies to report outlays for education-related programs using a standardized form, thereby assuring agency compliance in reporting. The scope of education programs reported here differs from that of OMB. Off-budget items such as the annual volume of guaranteed student loans were not included in OMB's reports. Finally, while some mention is made of an annual estimate of federal tax expenditures, OMB did not include them in its annual analysis of federal education support. Estimated federal tax expenditures for education are the difference between current federal tax receipts and what these receipts would be without existing education deductions to income allowed by federal tax provisions.

Recipients' data are estimated based on *Estimating Federal Funds for Education: A New Approach Applied to Fiscal Year 1980*, U.S. Department of Education, "Federal Support for Education, Fiscal Years 1980 to 1984," and *Catalog of Federal Domestic Assistance*. The recipients' data tend to undercount institutions of higher education (IHEs), students, and local education agencies (LEAs). This is because some of the federal programs have more than one recipient receiving funds. In these cases the recipients were put into a "mixed recipients" category, because there was no way to disaggregate the amount each recipient received.

Questions concerning "Federal Support for Education" can be directed to:

Charlene Hoffman
Data Development Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5650

High School and Beyond

High School and Beyond (HS&B) is a national longitudinal survey of 1980 high school sophomores and seniors. The base-year survey was a probability sample of 1,015 high schools with a target number of 36 sophomores and 36 seniors in each of the schools. A total of 58,270 students participated in the base-year survey. Substitutions were made for noncooperating schools—but not for students—in those strata where it was possible. Overall, 1,122 schools were selected in the original sample and 811 of these schools participated in the survey. An additional 204 schools were drawn in a replacement sample. Student refusals and student absences resulted in an 82 percent completion rate for the survey.

Several small groups in the population were oversampled to allow for special study of certain types of schools and students. Students completed questionnaires and took a battery of cognitive tests. In addition, a sample of parents of sophomores and seniors (about 3,600 for each cohort) was surveyed.

HS&B first followup activities took place in the spring of 1982. The sample design of the first followup survey called for the selection of approximately 30,000 people who were sophomores in 1980. The completion rate for sophomores eligible for on-campus survey administration was about 96 percent. About 89 percent of the students who left school between the base year and first followup surveys (dropouts, transfer students, and early graduates) completed the first followup sophomore questionnaire.

In designing the senior cohort first followup survey, one of the goals was to reduce the size of the retained sample, while still keeping sufficient numbers of minorities to allow important policy analyses. A total of 11,227 (94 percent) of the 11,995 persons subsampled completed the questionnaire. Information was obtained about the respondents' school and employment experiences, family status, and attitudes and plans.

The sample for the second followup, which took place in spring 1984, consisted of about 12,000 members of the senior cohort and about 15,000 members of the sophomore cohort. The completion rates were 91 percent for the senior cohort and 92 percent for the sophomore cohort.

HS&B third followup data collection activities were performed in spring 1986. Both the sophomore and senior cohort samples for this round of data collection were the same as those used for the second followup survey. The completion rates for the sophomore and senior cohort samples were 91 percent and 88 percent, respectively.

Further information on the High School and Beyond survey may be obtained from:

Aurora M. D'Amico
Postsecondary Education Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5652

High School Transcript Studies

As part of the first followup survey of High School and Beyond, transcripts were requested in fall 1982 for an 18,152-member subsample of the sophomore cohort. Of the 15,941 transcripts actually obtained, 1,969 were excluded because the students had dropped out of school before graduation, 799 were excluded because they were incomplete, and 1,057 were excluded because the students graduated before 1982 or the transcript indicated neither a dropout status nor graduation. Thus 12,116 transcripts were used for the overall curriculum analysis presented in this publication.

All courses in each transcript were assigned a six-digit code based on *A Classification of Secondary School Courses* (developed by Evaluation Technologies, under contract with NCES). Credits earned in each course were expressed in Carnegie units. (The Carnegie unit is a standard of measurement that represents 1 credit for the completion of a 1-year course. To receive credit for a course, the student must have received a passing grade—"pass," "D," or higher.) Students who transferred from public to private schools or from private to public schools between their sophomore and senior years were eliminated from public/private analyses.

Transcripts of 1987 high school graduates were compared with transcripts of 1982 graduates to describe changes in course taking across this 5-year period. The analyses were based on approximately 22,700 transcripts of 1987 graduates obtained as part of the 1987 High School Transcript Study and 12,000 transcripts of 1982 graduates who participated in the HS&B project. A brief description of each study is provided below.

The sample of schools for the 1987 High School Transcript Study (conducted by Westat, Inc. for the U.S. Department of Education, NCES) consisted of a nationally representative sample of 471 eligible secondary schools selected for 1986 National Assessment of Educational Progress (NAEP) for grade 11/age 17 students, of which 433 schools participated.

The 1990 High School Transcript Study was conducted using methodology and techniques nearly identical to those used in the 1987 study. The sample of schools was a nationally representative sample of schools teaching grade 12 or having 17-year-old students, and the sample of students was a representative sample of seniors graduating from each school. Approximately three-fourths of the sample for the transcript study had participated in NAEP assessments in 1990.

These analyses focused on high school graduates, so only those students who had graduated from high school were included—from the 1990 study, the 1987 High School Transcript Study, and from High School and Beyond. Because the methods of identifying and defining handicapped students were different for the later studies, and in order to make the samples as comparable as possible, it was necessary to restrict the samples to those students whose records indicated they had not participated in a special education program.

Further information on this survey may be obtained from:

Patrica Dabbs
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5653

Integrated Postsecondary Education Data System

The Integrated Postsecondary Education Data System (IPEDS) surveys all postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. This survey, which began in 1986, replaces and supplements the Higher Education General Information Survey (HEGIS).

IPEDS consists of several integrated components that obtain information on where postsecondary education is available (institutions), who participates in it and completes it (students), what programs are offered and what programs are completed, and what human and financial resources are involved in the provision of institutionally based postsecondary education. Specifically, these components include: institutional characteristics, including institutional activity; fall enrollment, including age and residence; fall enrollment in occupationally specific programs; completions; finance; staff; salaries of full-time instructional faculty; and academic libraries.

The higher education portion of this survey is a census of accredited 2- and 4-year colleges. From 1986–92, data from private less-than-2-year institutions (primarily vocational/technical institutions) were collected through a sample survey. Thus, some portions of all postsecondary institutional data will be subject to sampling and nonsampling errors, while that portion from accredited 2- and 4-year colleges will be subject only to nonsampling error. In 1993, IPEDS began to survey the universe of all postsecondary institutions eligible for Title IV student financial aid.

Prior to the establishment of IPEDS in 1986, HEGIS acquired and maintained statistical data on the characteristics and operations of institutions of higher education. Implemented in 1966, HEGIS was an annual universe survey of institutions listed in the latest NCES *Education Directory of Colleges and Universities*.

The trend tables presented in this report draw on IPEDS and HEGIS surveys, which solicited information concerning institutional characteristics, faculty salaries, finances, enrollment, and degrees. Since these surveys were distributed to all higher education institutions, the data presented were not subject to sampling error. However, they were subject to nonsampling error, the sources of which varied with the survey instrument. Information concerning the nonsampling error of the enrollment and degrees surveys draws extensively on the "HEGIS Post-Survey Validation Study" conducted in 1979.

Further information on IPEDS may be obtained from:

Roslyn Korb
Postsecondary Education Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5652

Fall Enrollment. This survey has been part of the IPEDS or HEGIS series since 1966. The enrollment survey response rate was relatively high; the 1990 response rate was 87.2 percent. Major sources of nonsampling error for this survey were classification problems, the unavailability of needed data, interpretation of definitions, the survey due date, and operational errors. Of these, the classification of students appears to have been the main source of error. Institutions had problems in correctly classifying first-time freshmen, other first-time students, and unclassified students for both full-time and part-time categories. These problems occurred most often at 2-year institutions (private and public) and private 4-year institutions. In the 1977–78 HEGIS validation studies, the classification problem led to an estimated overcount of 11,000 full-time students and an undercount of 19,000 part-time students. Although the ratio of error to the grand total was quite small (less than 1 percent), the percentage of errors was as high as 5 percent for detailed student levels and even higher at certain aggregation levels.

Beginning with fall 1986, the survey system was redesigned with the introduction of IPEDS (see above). The new survey system comprises all postsecondary institutions, but also maintains comparability with earlier surveys by allowing HEGIS institutions to be tabulated separately. The new system also provides for preliminary and revised data releases. This allows the Center flexibility to release early data sets while still maintaining a more accurate final database.

Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty. This survey has been conducted for most years from 1966–67 to 1985–86, and in 1987–88 and 1989–90. Although the survey form was changed a number of times during those years, only comparable data are presented in this report. The data were collected from the individual colleges and universities.

Between 1966–67 and 1985–86 this survey differed from other HEGIS surveys in that imputations were not made for nonrespondents. Thus, there is some possibility that the salary averages presented in this report may differ from the results of a complete enumeration of all colleges and universities. Beginning with the surveys for 1987–88, the IPEDS data tabulation procedures included imputations for survey nonrespondents. The response rate for the 1989–90 survey was 80.5 percent. The response rate for public colleges was substantially higher than the response rate for private colleges. Thus, it is probable that the public colleges' salary data are more accurate than the data for private colleges. Although data from these surveys are not subject to sampling error, sources of nonsampling error included computational errors and misclassification in reporting and processing. NCES checked individual colleges' data for internal and longitudinal consistency and contacted the colleges to check inconsistent data.

Completions. This survey was part of the HEGIS series throughout its existence. However, the degree classification taxonomy was revised in 1970–71 and 1982–83. Collection of degree data has been maintained through the IPEDS system.

Though information from survey years 1970–71 through 1981–82 is directly comparable, care must be taken if information before or after that period is included in any comparison. For example, degrees-conferred trend tables arranged by the 1982–83 classification were added to the *Digest of Education Statistics, 1992* to provide consistent data from 1970–71 to 1988–89. However, data on associate's degrees and other formal awards below the baccalaureate, by field of study after 1982–83, are not comparable with figures for earlier years. The nonresponse rate did not appear to be a significant source of nonsampling error for this survey. The return rate over the years was high, with the response rate for the 1989–90 survey at 92.3 percent. Because of the high return rate, nonsampling error caused by imputation was also minimal.

The major sources of nonsampling error for this survey were differences between the NCES program taxonomy and taxonomies used by the colleges, classification of double majors and double degrees, operational problems, and survey timing. In the 1979 HEGIS validation study, these sources of nonsampling were found to contribute to an error rate of 0.3 percent overreporting of bachelor's degrees and 1.3 percent overreporting of master's degrees. The differences, however, varied greatly among fields. Over 50 percent of the fields selected for the validation study had no errors identified. Categories of fields that had large differences were business and management, education, engineering, letters, and psychology. It was also shown that differences in proportion to the published figures were less than 1 percent for most of the selected fields that had some errors. Exceptions to these were: master's and Ph.D. programs in labor and industrial relations (20 percent and 8 percent); bachelor's and master's programs in art education (3 percent and 4 percent); bachelor's and Ph.D. programs in business and commerce, and in distributive education (5 percent and 9 percent); master's programs in philosophy (8 percent); and Ph.D. programs in psychology (11 percent).

Financial Statistics. This survey was part of the HEGIS series and has been continued under the IPEDS system. Changes were made in the financial survey instruments in fiscal years (FY) 1976, 1982, and 1987. The FY 76 survey instrument contained numerous revisions to earlier survey forms and made direct comparisons of line items very difficult. Beginning in FY 82, Pell Grant data were collected on federal restricted grants and contracts revenues and restricted scholarships and fellowships expenditures. The introduction of IPEDS in the FY 87 survey included several important changes to the survey instrument and data processing procedures. While these changes were significant, considerable effort has been made to present only comparable information on trends in this report and to note inconsistencies. Finance tables for this publication have been adjusted by subtracting the largely duplicative Pell Grant amounts from the later data to maintain comparability with pre-FY 82 data.

Possible sources of nonsampling error in the financial statistics include nonresponse, imputation, and misclassification. The response rate has been about 85–90 percent for most of the years reported. The response rate for the FY 1989 survey was 83.5 percent.

Two general methods of imputation were used in HEGIS. If the prior year's data were available for a nonresponding institution, these data were inflated using the Higher Education Price Index and adjusted according to changes in enrollments. If no previous year's data were available, current data were used from peer institutions selected for location (state or region), control, level, and enrollment size of institution. In most cases estimates for nonreporting institutions in IPEDS were made using data from peer institutions.

Beginning with FY 87, the new survey system (IPEDS, see above) has comprised all postsecondary institutions, but has also maintained comparability with earlier surveys by allowing 2- and 4-year HEGIS institutions to be tabulated separately. The finance data tabulated for this publication reflect totals for the HEGIS or higher education institutions only. For FY 87 through FY 89, in order to maintain comparability with the historical time series of HEGIS institutions, data were combined from two of the three different survey forms that make up the IPEDS survey system. The vast majority of the data were tabulated from Form 1, which was used to collect information from public and private nonprofit 2- and 4-year colleges. Form 2, a condensed form, was used to gather data for the 2-year proprietary institutions. Because of the differences in the data requested on the two forms, several assumptions were made about the Form 2 reports so that their figures could be included in the institutions of postsecondary education totals.

In IPEDS, the Form 2 institutions were not asked to separate appropriations from grants and contracts, nor state from local sources of funding. For the Form 2 institutions, all the federal revenues were assumed to be federal grants and contracts and all of the state and local revenues were assumed to be restricted state grants and contracts. All other Form 2 sources of revenue, except for tuition and fees and sales and services of educational activities, were included under "other." Similar adjustments were made to the expenditures accounts. The Form 2 institutions reported instruction, scholarship, and fellowship expenditures only. All other educational and general expenditures were allocated to academic support.

To reduce reporting error, NCES used national standards for reporting financial statistics. These standards are contained in *College and University Business Administration: Administrative Services* (1974 edition), published by the National Association of College and University Business Officers; *Audits of Colleges and Universities* (as amended August 31, 1974), by the American Institute of Certified Public Accountants; and *HEGIS Financial Reporting Guide* (1980), by NCES. Wherever possible, definitions and formats in the survey form are consistent with those in these three accounting texts.

Fall Staff. The fall staff data presented in this publication were collected in cooperation with the U.S. Equal Employment Opportunity Commission (EEOC). In 1989, survey instruments were mailed to 6,669 in-scope postsecondary education institutions, including 2,576 4-year schools, 2,739 2-year schools, and 273 public less-than-2-year schools. The universe of 5,002 less-than-2-year private institutions were represented by a sample of 1,071 institutions.

EEOC collects staff data through the Higher Education Staff Information (EEO-6) report from all higher education institutions with 15 or more full-time employees. NCES, through the IPEDS system, collects data from all other postsecondary institutions, including higher education institutions with less than 15 full-time employees. NCES and EEOC collect staff data biennially in odd numbered years in institutions of postsecondary education. The IPEDS file combines data from the two surveys to create the IPEDS "Fall Staff" data tape. For example, the IPEDS "Fall Staff" questionnaires were mailed out in July 1989 by NCES; the respondents reported the number of employees in their institution as of October 1, 1989. The EEO-6 questionnaires were mailed out by EEOC between October and November 1989; the respondents reported the employment statistics in their institution that cover the payroll period closest to October 1 or the survey year.

The 3,589 institutions of higher education (in the 50 states and the District of Columbia) in operation in 1989 form a subset of the universe of postsecondary institutions in this report. These institutions are accredited at the college level by an agency recognized by the Secretary, U.S. Department of Education; these institutions previously were surveyed under HEGIS, which IPEDS supersedes.

The "Fall Staff" survey had an overall response rate of 77.4 percent. This response rate was calculated as the ratio of the number of completed survey forms divided by the number of in-scope institutions. The response rate for higher education institutions was 89.6 percent.

Institutional Characteristics. This survey provided the basis for the universe of institutions presented in the *Education Directory, Colleges and Universities.* The universe comprised institutions that met certain accreditation criteria and offered at least a 1-year program of college-level studies leading toward a degree. All of these institutions were certified as eligible by the U.S. Department of Education's Division of Eligibility and Agency Evaluation. Each fall, institutions listed in the previous year's *Directory* were asked to update a computer printout of their information.

National Assessment of Educational Progress

The National Assessment of Educational Progress is a Congressionally mandated study funded by the Office of Educational Research and Improvement, U.S. Department of Education. The overall goal of the project is to determine the nation's progress in education. To accomplish this goal, a cross-sectional study was designed and initially implemented in 1969. Periodically, NAEP has gathered information about levels of educational achievement across the country. NAEP has surveyed the educational accomplishments of 9-,13-, and 17-year-old students (and in recent years, grades 4, 8, and 12), and occasionally young adults, in 10 learning areas. Different learning areas were assessed annually and, as of 1980–81, biennially. Most areas have been periodically reassessed in order to measure possible changes in education achievement.

The reading, writing, mathematics, and science assessments presented in this publication were conducted by either the Education Commission of the States (1969–1983) or the Educational Testing Service (1983 to the present). NAEP in-school assessments were based on a deeply stratified three-stage sampling design to obtain a nationally representative sample by age and, beginning in 1983–84, by grade. The first stage of sampling entails defining and selecting primary sampling units (PSUs). For each grade level (4, 8, or 12), the second stage entails enumerating, stratifying, and randomly selecting schools, both public and private, within each PSU selected at the first stage. The third stage involves randomly selecting students within a school for participation in NAEP. Assessment exercises were administered to small groups of students by specially trained personnel.

Information from NAEP is subject to both nonsampling and sampling error. Two possible sources of nonsampling error are nonparticipation and faulty instrumentation. The effects of nonparticipation are in some ways reduced through oversampling, although this does not assess the bias of nonparticipants. Instrumentation nonsampling error includes whether the NAEP assessment instruments measure what is being taught and in turn what is being learned by the students, ambiguous items or instructions, and insufficient time limits.

For further information on NAEP, contact:

Gary Phillips
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5653

National Education Longitudinal Study of 1988

The National Education Longitudinal Study of 1988 (NELS:88) is the third major longitudinal study sponsored by the National Center for Education Statistics. The two studies that preceded NELS:88, the National Longitudinal Study of the High School Class of 1972 (NLS–72) and HS&B surveyed high school seniors (and sophomores in HS&B) through high school, postsecondary education, and work and family formation experiences. Unlike its predecessors, NELS:88 began with a cohort of eighth-grade students.

NELS:88 is designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. It complements and strengthens state and local efforts by furnishing new information on how school policies, teacher practices, and family involvement affect student educational outcomes (i.e., academic achievement, persistence in school, and participation in postsecondary education). The base-year NELS:88 was a multifaceted study questionnaire with four cognitive tests, and questionnaires for students, teachers, parents, and the school.

Sampling was first conducted at the school level and then at the student level within schools. The data were drawn from a nationally representative sample of 1,000 schools (800 public schools and 200 private schools, including parochial institutions). Within this school sample, 26,000 eighth grade students were selected at random. The first and second followups revisited the same sample of students in 1990 and 1992, when the 1988 eighth-graders were in the 10th and 12th grades. Similar followups are being conducted in 1994 and 1997.

For more information on this survey, contact:

Jeffrey A. Owings
Elementary and Secondary Education Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5651

National Household Education Survey

The National Household Education Survey (NHES) is the first major attempt by the National Center for Education Statistics to go beyond its traditional, school-based data collection to a household survey. Historically, NCES has collected data from teachers, students, and schools through school-based surveys and from administrative records data through surveys of school districts and state education agencies. NHES has the potential to address many issues in education that have not been addressed previously by NCES data collection activities.

NHES is designed as a mechanism for collecting detailed information on educational issues from a relatively large and targeted sample of households in a timely fashion. Data for the NHES are being collected through telephone interviews, a relatively new approach for gathering data related to education issues. NHES uses Random Digit Dialing (RDD) to select households and Computer Assisted Telephone Interviewing (CATI) to collect information from household members. The sample for the NHES is drawn from the non-institutionalized civilian population in households with a telephone in the 50 states and the District of Columbia.

During the spring of 1991, NCES fielded a full-scale NHES on early education. Approximately 60,000 households were screened to identify a sample of children 3–8 years old. The parents of these children were interviewed in order to collect information about their children's educational activities and the role of the family in children's learning. At the same time, an adult education supplement was fielded. Adult household members were sampled and questioned about their participation in adult education.

The adult education component was, for the most part, adapted from the previous Current Population Survey (CPS) adult education supplements. However, unlike the CPS, it collects information on both adult education participants and nonparticipants. At present, NCES plans to field the adult education component once every 4 years after 1991. The NHES:91 survey identified and screened more than 60,000 households. A knowledgeable adult was asked a series of questions to screen all household members for adult education participation in a sample of about 20,000 of these 60,000 households, resulting in interviews with approximately 9,800 adult education participants and 2,750 nonparticipants. The adult education component of NHES can be used to address many questions about the patterns of participation by demographic and labor force characteristics. It includes data on reasons for taking courses, on the providers of the courses, and the cost of the courses. Information was also collected from non-participants concerning barriers to their participation.

For further information on the adult education component of NHES contact:

Peter Stowe
Elementary and Secondary Education
Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5651

National Longitudinal Study of the High School Class of 1972

The National Longitudinal Study (NLS) of the High School Class of 1972 began with the collection of base-year survey data from a sample of about 19,000 high school seniors in the spring of 1972. Five more followup surveys of these students were conducted in 1973, 1974, 1976, 1979, and 1986. The NLS was designed to provide the education community with information on the transitions of young adults from high school through postsecondary education and the workplace.

The sample design for the NLS is a stratified, two-stage probability sample of students from all schools, public and private, in the 50 states and the District of Columbia, with a 12th-grade enrollment during the 1971–72 school year. During the first stage of sampling, about 1,070 schools were selected for participation in the base-year survey. As many as 18 students were selected at random from each of the sample schools. The sizes of the school and student samples were increased during the first followup survey. Beginning with the first followup and continuing through the fourth followup, about 1,300 schools participated in the survey, and slightly under 23,500 students were sampled. The response rates for each of the different rounds of data collection have been 80 percent or higher.

Sample retention rates across the survey years have been quite high. For example, of the individuals responding to the base-year questionnaire, the percentages who responded to the first, second, third, and fourth followup questionnaires were about 94, 93, 89, and 83 percent, respectively.

Further information may be obtained from:

Aurora M. D'Amico
Postsecondary Education Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5652

National Postsecondary Student Aid Study

The National Center for Education Statistics conducted the National Postsecondary Student Aid Study (NPSAS) for the first time during the 1986–87 school year. This survey established the first comprehensive student financial aid database. Data were gathered from 1,074 postsecondary institutions and approximately 60,000 students and 24,000 parents. These data provided information on the cost of postsecondary education, the distribution of financial aid, and characteristics of both aided and non-aided students and their families, and the nature of aid packages.

In response to the continuing need for these data, NCES conducted the second cycle of NPSAS for the 1989–90 school year. In addition to replicating the earlier study, the 1990 NPSAS contains enhancements to the 1987 methodology that will fully meet the data needs of the financial aid community and of policymakers.

The 1990 in-school sample involved about 70,000 students selected from registrar lists of enrollees at 1,200 postsecondary institutions. The sample included both aided and nonaided students. Student information such as field of study, education level, and attendance status (part-time or full-time) was obtained from registrar records. Types and amounts of financial aid and family financial characteristics were abstracted from school financial aid records. Also, approximately 26,000 parents of students were sampled. Data concerning family composition and parent financial characteristics was compiled. Followup data collections are expected at 2-year intervals. Students enrolled in postsecondary education for the first time in 1990 will serve as the base for the longitudinal component of NPSAS.

Further information about this survey may be obtained from:

Andrew G. Malizio
Postsecondary Education Statistics Division
National Center for Educational Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5652

National Survey of Postsecondary Faculty

The National Survey of Postsecondary Faculty (NSOPF-88) was a comprehensive survey of higher education instructional faculty in the fall of 1987. It was the first such survey conducted since 1963. It gathered information regarding the backgrounds, responsibilities, workloads, salaries, benefits, and attitudes of both full- and part-time instructional faculty in 2- and 4-year institutions under both public and private control. In addition, information was gathered from institutional and department-level respondents on such issues as faculty composition, new hires, departures and recruitment, retention, and tenure policies.

There were three major components of the study: a survey of institutional-level respondents at a stratified random sample of 480 U.S. colleges and universities; a survey of a stratified random sample of 3,029 eligible department chairpersons (or their equivalent) within the participating 4-year institutions; and a survey of a stratified random sample of 11,013 eligible faculty members within the participating institutions. Response rates to the three surveys were 88 percent, 80 percent, and 76 percent, respectively.

The universe of institutions from which the sample was selected was all accredited nonproprietary U.S. postsecondary institutions that grant a 2-year (associate's) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education. This includes religious, medical, and other specialized postsecondary institutions as well as 2- and 4-year nonspecialized institutions. According to the 1987 IPEDS, this universe comprised 3,159 institutions. The universe does not include proprietary 2- and 4-year institutions or less-than-2-year postsecondary institutions.

Further information about this survey may be obtained from:

Linda Zimbler
Postsecondary Education Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5652

Projections of Education Statistics

Since 1964, NCES has published *Projections of Education Statistics*, projecting key statistics for elementary and secondary schools and institutions of higher education. Data are included for enrollments, instructional staff, graduates, and earned degrees. *Projections* includes several alternative projection series and a methodology section describing the techniques and assumptions used to prepare them. Data in this edition of *The Condition of Education* reflect the intermediate projection series only.

Differences between the reported and projected values are, of course, almost inevitable. An evaluation of past projections revealed that, at the elementary and secondary level, projections of enrollment have been quite accurate: mean absolute percentage differences for enrollment projections from 1 to 5 years into the future were less than 1 percent, while those for teachers were less than 4 percent.

Since projections of time series are subject to errors both by the nature of statistics and the properties of projection methodologies, users are cautioned not to place too much confidence in the numerical values of the projections. Important but unforeseeable economic and social changes may lead to differences. Projections are to be considered as indicators of broad trends.

For further information about projection methodology and accuracy, contact:

Debra E. Gerald
Statistical Standards and Methodology Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5654

Survey of Recent College Graduates

NCES has conducted periodic surveys of persons, about 1 year after graduation, to collect information on college outcomes. The "Recent College Graduates" surveys have concentrated on those graduates entering the teaching profession. To obtain accurate results on this smaller subgroup, graduates who are newly qualified to teach have been oversampled in each of the surveys. The survey involves a two-stage sampling procedure. First, a sample of institutions awarding bachelor's and master's degrees is selected and stratified by percentage of education graduates, control, and type of institution. Second, for each of the selected institutions, a sample of degree recipients is chosen. The response rates on the recent college graduates survey have tended to be low because of the great difficulty in tracing the students after graduation. Much more of the nonresponse can be attributed to invalid mailing addresses than to refusals to participate. Despite their shortcomings, the data are presented in this report because they provide valuable information not available elsewhere about college outcomes. Users should be cautious about drawing conclusions based on data from small samples. It is also likely that the data are somewhat biased since the more mobile students, such as graduate students, are the most difficult to track for the survey.

The 1976 survey of 1974–75 college graduates was the first and smallest of the series. The sample consisted of 209 schools, of which 200 (96 percent) responded. Of the 5,506 graduates in the sample, 4,350 responded, for a response rate of 79 percent.

The 1981 survey was larger, with a coverage of 301 institutions and 15,852 graduates. Responses were obtained from 286 institutions, for an institutional response rate of 95 percent, and from 9,312 graduates (716 others were determined to be out of scope), for a response rate of 62 percent.

The 1985 survey requested data from 18,738 graduates from 404 colleges. Responses were obtained from 13,200 students, for a response rate of 74 percent (885 were out of scope). The response rate for the colleges was 98 percent.

The 1987 survey form was sent to 21,957 graduates. Responses were received from 16,878, for a response rate of 79.7 percent.

The *1987 Transcript Study* collected transcripts for each student who was part of the 1987 sample.

The 1991 survey sampled 18,135 graduates and 400 institutions. The response rates were 83 percent for the graduates and 95 percent for institutions.

Further information on this survey may be obtained from:

Peter Stowe
Postsecondary Education Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5652

International Assessment of Educational Progress

In 1990–91, a total of 20 countries assessed the mathematics and science achievement of 13-year-old students and 14 of the 20 countries assessed 9-year-old students in these same subjects. Some countries assessed virtually all age-eligible children in the appropriate age group; others confined their samples to certain geographic regions, language groups, or grade levels. The definition of populations often followed the structure of school systems, political divisions, and cultural distinctions. In some countries, significant proportions of age-eligible children were not represented because they did not attend school (see notes to supplemental tables 15:1–4 and 16:1–4). Also, in some countries, low rates of school or student participation mean results may be biased.

Typically, a random sample of 3,300 students from about 110 different schools was selected from each population at each age level; half were assessed in mathematics and half in science. A total of about 175,000 9- and 13-year-olds (those born in calendar years 1981 and 1977, respectively) were tested in 13 different languages in March 1991.

The achievement tests lasted 1 hour. The tests given to 9-year-olds included 62 questions in mathematics and 60 questions in science. Those for 13-year-olds included 76 questions in mathematics and 72 questions in science. In addition, students of each age group spent about 10 minutes responding to questions about their backgrounds and home and school experiences. School administrators completed a school questionnaire.

Initial analyses involved the calculation of the percentage of correct answers and standard errors for individual questions. For each population, the weighted percentage of correct answers was calculated for each question. The results of students who omitted questions at the end of sections because they did not reach them were excluded from the calculations for those questions. For each percentage correct, an estimate of its standard error was calculated using the jackknife procedure. Percentage and standard errors were calculated for subgroups within each population, including gender and grade. Statistics for Canada were calculated using an appropriately weighted sample of responses drawn from the individual Canadian populations.

Further information on this survey can be obtained from:

Maureen E. Treacy
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5653

Schools and Staffing Survey

The school work force and teacher supply and demand are fundamental features of America's public and private school landscape. Yet, until recently, there has been a lack of data on the characteristics of our children's teachers and administrators and their workplace conditions. The Schools and Staffing Survey (SASS) was designed to meet this need. This survey is a comprehensive public and private, elementary/secondary education database that combines and expands three separate surveys NCES has conducted in the past. These included surveys of teacher demand and shortage, of public and private schools, and of public and private school teachers. The school administrator survey is a new addition to the NCES database.

Schools were the primary sampling unit for SASS, and a sample of teachers was selected in each school; public school districts were included in the sample when one or more of their schools was selected. The 1990–91 SASS included approximately 12,800 schools (9,300 public and 3,500 private), 65,000 teachers (52,000 public and 13,000 private), and 5,600 public school districts. The survey was conducted by mail with telephone followups.

The SASS sample has been designed to support the following types of estimates and comparisons: national and state estimates for public schools and teachers; estimates for private schools and teachers at the national level and for selected orientation groupings; and national comparisons of elementary, secondary, and combined schools and teachers. SASS was first conducted in the 1987–88 school year. Data collection at 2-year intervals began in 1990–91.

Another component of SASS is the Teacher Followup Survey (TFS). It consists of a subsample of SASS, and is implemented 1 year after the base-year survey. The survey identifies and collects data from various groups of teachers who were interviewed the previous year: (1) those persons who remain in the teaching profession, including those who remain in the same school as well as those who have moved; and (2) those persons who have left the teaching profession. These data are used to provide information about teacher attrition and retention in the public and private schools and to project teacher demand during the 1990s.

Further information on this survey may be obtained from:

Dan Kasprzyk
Elementary and Secondary Education Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, D. C. 20208–5651

Elementary and Secondary School Civil Rights Survey

The Office for Civil Rights (OCR) in the U.S. Department of Education conducts periodic surveys of elementary and secondary schools to obtain data on the characteristics of students enrolled in public schools throughout the nation. Racial/ethnic status, gender, limited English proficiency, and handicapping conditions are among the characteristics covered by recent surveys. Such information is required by OCR to fulfill its responsibilities under Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and section 504 of the Rehabilitation Act of 1973. The 1976 survey was a complete census of public school districts in the nation. The 1984, 1986, and 1988 surveys were based on samples. The universe, from which the districts were to be sampled, was defined to be all public schools in the nation (50 states and the District of Columbia). A universe file maintained by the National Center for Education Statistics from its Common Core of Data was used. The selection factors used in selecting the sample were (1) minimum percent coverage of a specific population variable, and (2) maximum percent standard deviation of a projection of a population variable from the sample to the universe total.

Stratification also included district size and state. The 1984, 1986, 1988, 1990, and 1992 surveys are subject to sampling and nonsampling errors.

For further information about these surveys, contact:

Sharon Tuchman
Surveys and Statistical Support Branch
Room 5058, Switzer Building

330 C Street SW
Washington, DC 20202

Annual Report to Congress on the Implementation of the Education of the Handicapped Act

The Education of the Handicapped Act (EHA) requires the Secretary of Education to transmit to Congress annually a report describing the progress in serving the nation's handicapped children. The annual report contains information on such children served by the public schools under the provisions of Part B of the EHA and on children served in state-operated programs (SOP) for the handicapped under Chapter I of the Education Consolidation and Improvement Act (ECIA). Statistics on children receiving special education and related services in various settings and on school personnel providing such services are reported in an annual submission of data to the Office of Special Education and Rehabilitative Services (OSERS) by the 50 states, the District of Columbia, and the outlying areas. The child count information is based on the number of handicapped children receiving special education and related services on December 1 of each year for EHA and October 1 for Chapter I of ECIA/SOP.

Since each participant in programs for the handicapped is reported to OSERS, the data are not subject to sampling error. However, nonsampling error can occur from a variety of sources. Some states follow a noncategorical approach to the delivery of special education services but produce counts by handicapping condition only because EHA-B requires it. In those states that do categorize their handicapped students, definitions and labeling practices vary. In each case, even though states must use the federal definitions of the handicapping categories for reporting purposes, there is no way to judge the accuracy of these states' relabeling of their students for the federal count. Some states also have reported combined counts for some of the smaller categories of handicap.

These variations in labeling practices may help explain why there have been inconsistencies both year to year within a given state and from state to state in the ways in which students with more than one handicapping condition have been categorized. However, federal and state efforts to ensure that children are being classified and reported appropriately, and efforts to achieve greater consistency in classification and reporting among states help minimize these variations.

Further information on the *Annual Report to Congress* may be obtained from:

Lou Danielson
Office of Special Education and
Rehabilitative Services
Office of Special Education Programs
Room 3523, Switzer Building
330 C Street SW
Washington, DC 20202

Current Population Survey

Current estimates of school enrollment and social and economic characteristics of students are based on data collected in the Census Bureau's monthly household survey of about 60,000 households, the CPS. The CPS covers 729 sample areas consisting of 1,973 counties, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. The current sample was selected from 1980 census files and is periodically updated to reflect new housing construction.

The primary function of the monthly CPS is to collect data on labor force participation of the civilian noninstitutional population. (It excludes military personnel and inmates of institutions.) In October of each year, questions on school enrollment by grade and other school characteristics are asked about each member of the household.

The estimation procedure employed for the monthly CPS data involves inflating weighted sample results to independent estimates for the total civilian noninstitutional population by age, sex, race, and Hispanic origin. These independent estimates are derived from statistics from decennial censuses of the population: statistics on births, deaths, and immigration and emigration; and statistics on the strength of the Armed Forces. Generalized standard error tables are provided in the *Current Population Reports*. The data are subject to both nonsampling and sampling errors.

Further information is available in the *Current Population Reports*, Series P-20, or by contacting:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

School Enrollment. Each October, the CPS includes supplemental questions on the enrollment status of the population aged 3 and older. Annual reports documenting school enrollment of the population have been produced by the Bureau of the Census since 1946. The latest report is *Current Population Reports*, Series P-20, No. 469, *School Enrollment—Social and Economic Characteristics of Students: October 1991*. All sample surveys are subject to sampling and nonsampling error. The main sources of nonsampling error in the supplement are those inherent in any household survey. When a household respondent reports for all individuals in the household, is that person knowledgeable about the grade or level of school, type of school, or full-time status? In addition, some analysts believe social acceptability of response causes biased reporting, such as reluctance to report lack of a high school diploma; some dismiss it. Household-reported data may not be consistent with administrative data because definitions may not be the same. An additional source of variation in statistics reported may be a change in the survey universe over time. For example, a significantly larger proportion of young men were members of the Armed Forces in the late 1960s and early 1970s than before or after and, therefore, were not in the CPS universe. That caused a short-term increase in the school enrollment *rate* of young men, which was greater than the increase in numbers of enrollees would indicate. Other events may similarly affect survey data. The user must be mindful of external events as well as the character of the population being measured when describing survey trends.

An advantage of household survey data over administrative data is the availability of demographic, social, and economic data for the student and family. Beginning with data for October 1981, tabulations have been controlled to the 1980 census. Estimates for earlier years were controlled to earlier censuses.

Questions concerning the CPS school enrollment data may be directed to:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

Educational Attainment. Data on years of school completed are derived from two questions on the CPS instrument. Biennial reports documenting educational attainment are produced by the Bureau of the Census using March CPS data. The latest report is *Current Population Reports*, Series P-20, No. 451 *Educational Attainment in the United States, March 1989 and 1988*.

The usual constraints on use of household survey data apply. Reliability of response may depend on whether a proxy respondent was used, the recency and importance of the event, and the number and clarity of response categories. There is some evidence that years of school completed in the CPS may not measure completion of degrees as clearly as they once did. The number of persons who have completed 4 years of college has been increasing more rapidly than the number of bachelor's degrees added each year would suggest. While the number of years completed is not deteriorating in quality (that is, respondents are not exaggerating the number of years), more students than in the past are taking more than 4 academic years to complete a bachelor's degree. Also, although interviewers are instructed to count receiving a high school diploma by means of passing a GED exam as completion of the 12th grade, as the number of persons who have received a diploma in this way has increased the number counted appropriately may not have kept pace. The 1990 Census of Population contains a question on highest degree received rather than relying solely on a "years of school completed" item.

Beginning with the data for March 1980, tabulations have been controlled to the 1980 census. Estimates for earlier years were controlled to earlier censuses.

Questions concerning the CPS educational attainment data may be directed to:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

Participation in Adult Education. In May of 1969, 1972, 1975, 1978, 1981, and 1984, the CPS included a supplemental inquiry on "Participation in Adult Education" (PAE). In addition to the questions on the CPS, interviewers asked if anyone in the household 17 years of age or older had participated in adult education in the 12-month period prior to the survey date. A survey form was filled out by the interviewer or left with a proxy member of the household for participants who were not at home at the time of the interview. In 1981, the supplement form was no longer left with the proxy but completed by the interviewer.

The PAE response rate of 94 percent in 1981 must be viewed in conjunction with the 96 percent response rate of the CPS. The overall response rate for the PAE survey in 1981 is then 90 percent.

For more information, contact:

Postsecondary Education Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208–5652

Voting and Registration. In November of election years, the CPS includes supplemental questions on voting and registration within the civilian noninstitutional population. CPS voting estimates exceed counts of the actual number of votes cast. On balance, the CPS overstates voting in Presidential elections by 10–20 percent of the total number of persons reported as having voted. Some of the possible reasons for the discrepancies are: (a) understatement of actual number of votes cast; (b) possible reluctance of some CPS respondents to admit to not voting; (c) nonresponse to the CPS survey; (d) CPS undercoverage of certain groups in the population in which nonvoting may be high; (e) use of a single household respondent to report on the voting and registration of all persons in the household. These reasons are discussed in greater detail in *Current Population Reports,* Series P-20, No. 453, "Voting and Registration in the Election of November 1990," pp. 9–11.

Data on voter participation by social and economic characteristics of the population of voting age have been published since 1964 in *Current Population Reports,* Series P-20. The latest report is "Voting and Registration in the Election of November 1990," No. 453.

For additional information about this survey, contact:

Jerry T. Jennings
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

Educational Attainment of Workers

These data are collected by the March supplement to the CPS, sponsored by the Bureau of Labor Statistics and conducted by the Bureau of the Census. Sampling and nonsampling errors associated with the CPS are discussed under that heading. For further information on employment and unemployment statistics contact:

Division of Labor Force Statistics
Bureau of Labor Statistics
441 G Street NW, Room 2486
Washington, DC 20212

How Workers Get Their Training

In January 1983 and 1991, The Employment and Training Administration (ETA) funded supplements to the Census Bureau's Current Population Survey on worker training. The questions asked individuals to identify various types of training they needed to obtain their current or last job as well as the training used to improve their skills on those jobs.

In contrast with the 1983 survey, interviewers conducting the 1991 survey were instructed to obtain the information from each individual directly; proxy responses were not permitted. Primarily because individuals could not answer by proxy, a high proportion of eligible persons in the sample did not respond to the January 1991 training questions. In order to obtain data about the population based only on information provided by respondents, the sample weight originally assigned each respondent was adjusted based on factors for specific age, sex, race, employment status, and occupational status. The adjusted weights were used to prepare published estimates.

For more information, contact:

Office of Employment Projections
Bureau of Labor Statistics
U.S. Department of Labor
2 Massachusetts Avenue NE
Washington, DC 20212

The National Longitudinal Study of Youth

The National Longitudinal Study of Youth (NLSY) is a nationally representative sample of 12,686 young men and young women who were ages 14–21 in 1979 when they were first interviewed. Three independent probability samples, designed to represent the entire population of youth born in the United States between 1957 and 1964, were drawn for the NLSY: (1) a cross-sectional sample designed to be representative of the noninstitutionalized civilian segment of American young people age 14–21 as of January 1, 1979; (2) a supplemental sample designed to overrepresent civilian Hispanic, black, and economically disadvantaged non-Hispanic, non-black youth; and (3) a military sample designed to represent the population aged 17–21 as of January 1, 1979 and serving in the military as of September 30, 1978.

Response rates within the NLSY sample have remained at or above 90 percent for the first 12 years of interviews. By the end of 1990, 10,436 civilian and military respondents continued to be interviewed for an overall retention rate of 89.9 percent.

Further information is available by contacting:

The Center for Human Resource Research
The Ohio State University
921 Chatham Lane, Suite 200
Columbus, Ohio 43221–2418
(614) 442–7300

Higher Education Staff Information Survey (EE0-6)

The U.S. EEOC requires all public and private institutions of higher education with at least 15 full-time employees to file the Higher Education Staff Information (EEO-6) report biennially. Higher education institutions are those accredited at the college level by an agency recognized by the Secretary, U.S. Department of Education.

The EEO-6 collects information on (1) the number of full-time and part-time employees, by occupation, race/ethnicity and sex; (2) the number of full-time faculty, by academic rank, tenure status, race/ethnicity, and sex; and (3) the salaries of full-time staff, by occupation, race/ethnicity, and sex.

Beginning in 1987, data from the EEO-6 have been combined with data collected by the NCES to create the Fall Staff survey. The Fall Staff survey is discussed under IPEDS and is conducted by NCES.

For additional information on the EEO-6 survey, contact:

Betty Wright
U.S. Equal Employment Opportunity
Commission
1801 L Street NW
Washington, DC 20507

National Crime Survey, School Crime Supplement

The National Crime Survey (NCS) conducted by the Bureau of Justice Statistics (BJS) collects data from a nationally representative sample of households. When a household is selected for inclusion in the sample, household members age 12 or older are interviewed every 6 months for 3 years. During each interview, information is obtained about the personal victimizations, if any, experienced by the interviewee in the 6 months preceding the interview. One member, generally over the age of 18, is also designated the household respondent, from whom information is obtained about all crimes committed against the household during the preceding 6 months.

The NCS measures both attempted and completed incidents of the violent crimes of rape, robbery, and aggravated and simple assault; personal thefts with and without contact; and the household crimes of burglary, household larceny, and motor vehicle theft.

The School Crime Supplement to the NCS contains data collected in interviews conducted from January through June of 1989 as a supplement to the NCS data collection program. It focuses on personal crimes of violence and theft that were committed inside a school building or on school property only.

The only eligible respondents for this school crime supplement were those household members who were between the ages of 12 and 19, had attended school at any time during the 6 months preceding the interview, and were enrolled in a school that would advance them towards the eventual receipt of a high school diploma.

Further information on the School Crime Supplement to the National Crime Survey may be obtained from:

Bruce Taylor
Bureau of Justice Statistics
633 Indiana Avenue NW
Washington, DC 20531

Monitoring the Future

The National Institute on Drug Abuse is the primary supporter of the long-term study entitled *Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth*, conducted by the University of Michigan, Institute for Social Research. One component of the study deals with student drug abuse, another investigates student victimization at school. Results of a national sample survey have been published annually since 1975. Approximately 125 to 135 schools have participated each year. With the exception of 1975 when about 9,400 students participated in the survey, more than 15,000 students have participated annually. For the class of 1990, about 15,200 students responded to the survey. Over the years, the response rate has varied from 77 to 84 percent.

The data in this survey represent only high school seniors. Understandably, there will be some reluctance to admit illegal activities. Also, students who were out of school on the day of the survey were nonrespondents. The survey did not include high school dropouts. The inclusion of these two groups would tend to increase the proportion of individuals who had used drugs. A 1983 study found that the inclusion of the absentees could increase some of the drug usage estimates by as much as 2.7 percent. (Details on that study and its methodology were published in *Drug Use Among American High School Students, College Students, and Other Young Adults*, by Lloyd D. Johnston, Patrick M. O'Malley, and Jerald G. Bachman, available from the National Clearinghouse on Drug Abuse Information, 5600 Fishers Lane, Rockville, MD 20857.)

Further information on this survey may be obtained from:

National Institute on Drug Abuse
Division of Epidemiology and
Statistical Analysis
5600 Fishers Lane
Rockville, MD 20857

National Health Interview Survey

The National Health Interview Survey (NHIS) is a continuous cross-sectional household interview survey. Each week a probability sample of the civilian noninstitutionalized population of the United States is interviewed by personnel of the U.S. Bureau of the Census. Estimates for certain health characteristics, such as limited activity and respondent-assessed status, are compiled yearly. Information on special health topics, such as health care coverage, health promotion, and disease prevention, is periodically collected for all or a sample of household members.

All information collected in the survey results from reports by responsible family members or unrelated individuals residing in the household. When possible, all adult members participate in the interview. However, proxy responses are accepted for family members who are not at home, and are required for all children (those under 18 years of age) and for all household members who are physically or mentally incapable of responding for themselves.

In 1982, the NHIS questionnaire and data preparation procedures of the survey were extensively revised. The basic concepts of NHIS changed in some cases, and in other cases the concepts were measured in a different way. Comparisons with earlier results should not be undertaken without carefully examining these changes.

In 1985, although several new sample design features were adopted for NHIS, conceptually the sampling plan remained the same. The major changes included (a) reducing the number of primary sampling locations from 376 to 198 for sampling efficiency, (b) oversampling the black population to improve the precision of the statistics, (c) subdividing the NHIS sample into four separate representative panels to facilitate linkage to other National Center for Health Statistics (NCHS) surveys, and (d) using an all-area frame not based on the decennial census to facilitate NCHS survey linkage and to conduct NHIS followback surveys.

The National Center for Health Statistics provides estimates and technical notes on methods for this survey in Series 10 publications, *Data from the National Health Interview Survey.*

For additional information about this survey, contact:

National Center for Health Statistics
Division of Health Interview Statistics
6525 Belcrest Road
Hyattsville, MD 20782
(301) 436–7089

Survey of Earned Doctorates

The Survey of Earned Doctorates (SED) has been conducted annually, under contract, by the National Research Council for the U.S. Department of Education, the National Endowment for the Humanities, the National Science Foundation, and other federal agencies since 1957. Information from the survey becomes part of the Doctorate Records File, which includes records for doctorates awarded since 1920 by regionally accredited universities and colleges. The universe consists of all recipients of doctoral degrees such as Ph.D. or D.Sc., but excludes the recipients of first-professional degrees such as the J.D. or M.D. Approximately 95 percent of the annual cohort of doctorate recipients have responded to the questionnaire, which is distributed through the cooperation of the Graduate Deans. Partial data from public sources are added to the file for nonrespondents. The data for a given year include all doctorates awarded in the 12-month period ending on June 30th of that year.

Data for the SED are collected directly from individual doctorate recipients. In addition to the field and specialty of the degree, the recipient is asked to provide educational history, selected demographic data, and information on postgraduate work and study plans. The National Center for Education Statistics' "Survey of Earned Degrees," part of its Integrated Postsecondary Education Data System, collected data from institutions, not individuals. Therefore, the number of doctorates reported in SED differs slightly from IPEDS/HEGIS totals. Also, SED data are restricted to research doctorates.

The differences between the two data series have been generally consistent since 1960. The ratio of IPEDS/HEGIS to SED totals for all Ph.D.s has ranged from 1.01 to 1.06.

Further information on this survey can be obtained from Summary Report: *Doctorate Recipients from United States Universities*, various years, published by the National Research Council, or by contacting:

Office of Scientific and Engineering Personnel
National Research Council
2101 Constitution Avenue NW
Washington, DC 20418

Survey of Doctorate Recipients

The Survey of Doctorate Recipients (SDR) is a biennial survey of individuals who have received doctorates in the humanities, sciences, and engineering over the past four decades. It has surveyed scientists (including social scientists and psychologists) and engineers since 1973 and humanists since 1977. It is conducted by the National Research Council with support from the National Science Foundation, the National Endowment for the Humanities, the National Institutes of Health, the Department of Agriculture, and the Department of Energy.

The population for the survey consists of individuals who have received doctorates during a 42-year period. To maintain the length of this timespan for each biennial survey, the two most recent graduating cohorts of Ph.D.s are added to the population, and the two oldest are eliminated. It is a longitudinal survey—that is, individual members of the survey panel are resurveyed every 2 years—and contains historical data on employment status, employment sector, primary work activity, academic rank, tenure status, salary, and other characteristics.

For a more detailed discussion of the history of the SDR, the sample, and other methodological issues, see: National Research Council, *Methodological Report of the 1987 Survey of Doctorate Recipients*, National Research Council, April 1989 (prepared by Mary Belisle).

For further information, contact:

Survey of Doctorate Recipients Project
Office of Scientific and Engineering Personnel
National Research Council
2101 Constitution Avenue NW, Room GR 412
Washington, DC 20418

Scientific and Engineering Expenditures at Universities and Colleges Survey

The National Science Foundation's Scientific and Engineering Expenditures at Universities and Colleges Survey originated in 1954 and has been conducted annually since 1972. The population surveyed in most years has consisted of the 500–600 universities and colleges that grant a graduate science or engineering degree and/or annually perform at least $50,000 in separately budgeted research and development (R&D). R&D is defined as current fund expenditures designed to produce specific research outcomes and is funded either by an external agency to an institution or is separately budgeted by an internal institution unit. The institutions included in this survey population expend over 95 percent of the nation's academic R&D funds. In addition, approximately 17 university-administered, federally funded research and development centers (FFRDCs) that are engaged in basic or applied research, development, or management of R&D activities are surveyed.

Since 1984 this survey has been conducted as a sample survey consisting of two strata: a certainty stratum including all doctorate-granting institutions, all historically black colleges and universities with R&D, and all university-administered FFRDCs; and a probability stratum including a random sample of all nondoctorate-granting institutions that perform significant levels of research and development.

Further information on this survey may be obtained from *Guide to the National Science Foundation's Surveys of Academic Science and Engineering*, December 1990, published by the National Science Foundation, or by contacting:

Science and Engineering Activities Program
Division of Science Resources Studies
National Science Foundation
1800 G Street NW, Room L-611
Washington, DC 20550

American College Testing Program

The American College Testing (ACT) Assessment is designed to measure educational development in the areas of English, mathematics, social studies, and natural sciences. The ACT Assessment is taken by college-bound high school students and the test results are used to predict how well students might perform in college.

Prior to the 1984–85 school year, national norms were based on a 10 percent sample of the students taking the test. Since then, national norms have been based on the test scores of all students taking the test. Moreover, beginning with 1984–85 these norms have been based on the most recent ACT scores available from students scheduled to graduate in the spring of the year they take the test. Duplicate test records are no longer used to produce national figures.

ACT standard scores are reported for each subject area on a scale from 1 to 36. The four ACT standard scores have a mean (average) of about 19 and a standard deviation of about 6 for college-bound students nationally. A composite score is obtained by taking the simple average of the four standard scores and is an indication of student's overall academic development across these subject areas.

It should be noted that college-bound students who take the ACT Assessment are not representative in some respects of college-bound students nationally. First, students who live in the Midwest, Rocky Mountains and Plains, and the South are overrepresented among ACT-tested students compared with college-bound students nationally. Second, ACT-tested students tend to enroll in public colleges and universities more frequently than do college-bound students nationally.

The 1990 ACT assessment is significantly different from previous years. Consequently, it is not possible to make direct comparisons between scores earned in 1990 and those scores earned in previous years. To permit continuity in tracking of score trends, ACT has established links between scores earned on ACT tests administered before October 1989 and scores on the new ACT.

For further information, contact:

The American College Testing Program
2201 North Dodge Street
P.O. Box 168
Iowa City, IA 52243

American Federation of Teachers

The American Federation of Teachers (AFT) reports national and state average salaries and earnings of teachers, other school employees, government workers, and professional employees over the past 25 years. The AFT's survey of state departments of education obtains information on minimum salaries, experienced teachers reentering the classroom, and teacher age and experience. Most data from the survey are reported as received, although some data are confirmed by telephone. These data are available in the AFT's annual report *Survey and Analysis of Salary Trends*. While serving as the primary vehicle for reporting the results of the AFT's annual survey of state departments of education, several other data sources are also used in this report.

Further information on this survey can be obtained from:

American Federation of Teachers
555 New Jersey Avenue NW
Washington, DC 20001

College Entrance Examination Board

The Admissions Testing Program of the College Board comprises a number of college admissions tests, including the Preliminary Scholastic Aptitude Test (PSAT) and the Scholastic Aptitude Test (SAT). High school students participate in the testing program as sophomores, juniors, or seniors—some more than once during these 3 years. If they have taken the tests more than once, only the most recent scores are tabulated. The PSAT and SAT report subscores in the areas of mathematics and verbal ability.

The SAT results are not representative of high school students or college-bound students nationally since the sample is self-selected. Generally, tests are taken by students who need the results to attend a particular college or university. The state totals are greatly affected by the requirements of its state colleges. Public colleges in a number of states require ACT scores rather than SAT scores. Thus, the proportion of students taking the SAT in these states is very low and is inappropriate for any comparison. In recent years about 1 million high school students have taken the examination annually.

Further information on the SAT can be obtained from:

College Entrance Examination Board
Educational Testing Service
Princeton, NJ 08541

Gallup Poll

Each year the Gallup Poll conducts the "Public Attitudes Toward the Public Schools" survey, funded by Phi Delta Kappa. The survey includes interviews with approximately 1,600 adults representing the civilian noninstitutional population 18 years old and over.

The sample used in the 22nd annual survey was made up of a total of 1,594 respondents and is described as a modified probability sample of the nation. Personal, in-home interviewing was conducted in representative areas of the nation and types of communities. Approximately 67 percent of the respondents had no children in school, 30 percent were parents of children in public schools, and 6 percent had children attending nonpublic schools. This total is greater than 100 percent because some parents had children attending both public and nonpublic schools.

The survey is a sample survey and is subject to sampling error. The size of error depends largely on the number of respondents providing data. For example, an estimated percentage of about 10 percent based on the responses of 1,000 sample members has an approximate sampling error of 2 percent at the 95 percent confidence level. The sampling error for the difference in two percentages (50 percent versus 41 percent) based on two samples of 750 members and 400 members, respectively, is about 8 percent.

Further information on this survey can be obtained from:

Gallup Poll
Phi Delta Kappa
P.O. Box 789
Bloomington, IN 47402–0789

Graduate Record Examination Council

All students who have taken the Graduate Record Examinations (GRE) General Test were asked a series of background information questions. The responses and the test scores themselves form the basis for continuing GRE Program research. In addition, these data are compiled and included in an annual report. The 12th in the series is *A Summary of Data Collected From Graduate Record Examinations Test Takers During 1986–1987.*

The GRE cautions users of these data that "information in these reports is based solely on examinees who took the GRE General Test and should not be interpreted as being representative of any other group. The report does not present data for all baccalaureate degree recipients, for all graduate school applicants, or for all first-time graduate school enrollees." Nevertheless, the test-taking group is a large subset (albeit a self-selected one) of each of these groups.

Further information on this and previous editions of the report may be obtained by contacting:

Office of the GRE Program Director
Educational Testing Service
Princeton, NJ 08541

National Education Association Estimates of School Statistics

The National Education Association (NEA) reports revenues and expenditure data in its annual publication, *Estimates of School Statistics.* Each year NEA prepares regression-based estimates of financial and other education statistics and submits them to the states for verification. Generally, about 30 states adjust these estimates based on their own data. These preliminary data are published by NEA along with revised data from previous years. States are asked to revise previously submitted data as final figures become available. The most recent publication contains all changes reported to the NEA. Some tables in *The Condition of Education* used revised estimates of financial data prepared by NEA because it was the most current source. Since expenditure data reported to NCES must be certified for use in the U.S. Department of Education formula grant programs (such as Chapter I of the Education Consolidation and Improvement Act), NCES data are not available as soon as NEA estimates.

Further information can be obtained from:

National Education Association—Research
1201 16th Street NW
Washington, DC 20036

United Nations Educational, Scientific, and Cultural Organization

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) conducts annual surveys of education statistics of its member countries. Besides official surveys, data are supplemented by information obtained by UNESCO through other publications and sources. Each year, more than 200 countries reply to the UNESCO surveys. In some cases, estimates are made by UNESCO for particular items such as world and continent totals. While great efforts are made to make them as comparable as possible, the data still reflect the vast differences among the countries of the world in the structure of education. While there is some agreement about the reporting of first- and second-level data, the third level (postsecondary education) presents numerous substantial problems. Some countries report only university enrollment while other countries report all postsecondary enrollment, including vocational and technical schools and correspondence programs. A very high proportion of some countries' third-level students attend institutions in other countries. While definition problems are many in this sort of study, other survey problems should not be overlooked. The member countries that provide data to UNESCO are responsible for their validity. Thus, data for particular countries are subject to nonsampling error and perhaps sampling error as well. Some countries may furnish only rough estimates while data from other countries may be very accurate. Other difficulties are caused by the varying periodicity of data collection among the countries of the world. In spite of such problems, many researchers use UNESCO data because they are the best available. Users should examine footnotes carefully to recognize some of the data limitations.

More complete information may be obtained from the *Statistical Yearbook* published by UNESCO or from:

Office of Statistics
UNESCO
Place de Fontenoy
75700 Paris, France

The International Association for the Evaluation of Educational Achievement
IEA Reading Literacy Study

In the period 1989–1992, the International Association for the Evaluation of Educational Achievement (IEA) conducted a Reading Literacy Study in 32 systems of education. The study focused on two levels in each of these systems, the grade level where most 9-year-olds were to be found and the grade level where most 14-year-olds were to be found.

To obtain comparable samples of students, multistage sampling was used in each country and schools or classes were typically drawn with a probability proportional to the size of the school or class.

Three major domains or types of reading literacy materials assessed at both age levels were as follows:

1. *Narrative prose*: Continuous texts in which the writers' aim is to tell a story—whether fact or fiction. They normally follow a linear time sequence and are usually intended to entertain or involve the reader emotionally. The selected extracts ranged from short fables to lengthy stories of more than 1,000 words.
2. *Expository prose*: Continuous texts designed to describe, explain, or otherwise convey factual information or opinion to the reader. The tests contained, for example, brief family letters and descriptions of animals as well as lengthy treatises on smoking and lasers.
3. *Documents*: Structured information presented in the form of charts, tables, maps, graphs, lists, or sets of instructions. These materials were organized in such a way that students had to search, locate, and process selected facts, rather than read every word of continuous text. In some cases, students were required to follow detailed instructions in responding to such documents.

To obtain raw scores, all correct answers were totaled for each student in each domain. The Rausch procedure was used to produce scales for each domain. Each scale was given a mean of 500 and a standard deviation of 100.

Further information is available in the IEA report *How in the World Do Students Read?* by Warwick B. Elley.

Organization for Economic Cooperation and Development

The Organization for Economic Cooperation and Development (OECD) publishes analyses of national policies in education, training, and economics in 23 countries. The countries surveyed are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States, and Yugoslavia.

Since only developed nations, mostly European, are included in OECD studies, the range of analysis is limited. However, OECD data allow for some detailed international comparisons of financial resources or other education variables to be made for this selected group of countries.

Further information can be obtained from:

OECD
2, rue Andre-Pascal
75775 PARIS CEDEX 16, France

Sources by Indicator

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1. **National Center for Education Statistics** U.S. Department of Education	**Indicator Number**
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3.	**College Entrance Examination Board** *National Report: College Bound Seniors, 1972–93*	20
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6.	**The International Association for the Evaluation of Educational Achievement** IEA Reading Literacy Study	17
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Glossary

Academic support: (See Expenditures.)

Adult education: College, vocational, or occupational programs, continuing education or noncredit courses, correspondence courses and tutoring, as well as courses and other educational activities provided by employers, community groups, and other providers.

Advanced degree: Any formal degree attained after the bachelor's degree. Advanced degrees include master's degrees, doctoral degrees, and professional degrees.

Advantaged urban: Students in this group live in metropolitan statistical areas and attend schools where a high proportion of the students' parents are in professional or managerial positions. Schools were placed into this category on the basis of information about the type of community, the size of its population, and an occupational profile of residents provided by school principals participating in the National Assessment of Educational Progress (NAEP).

Appropriations (federal funds): Budget authority provided through the congressional appropriation process that permits federal agencies to incur obligations and to make payments.

Appropriations (institutional revenues): An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Associate's degree: A degree granted for the successful completion of a sub-baccalaureate program of studies, usually requiring at least 2 years (or equivalent) of full-time college-level study. This includes degrees granted in a cooperative or work-study program.

Auxiliary enterprises: (See Revenues.)

Average daily attendance (ADA): The aggregate attendance of a school during a reporting period (normally a school year) divided by the number of days that school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days that school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

Baccalaureate degree: (See Bachelor's degree.)

Bachelor's degree: A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or equivalent) of full-time college-level study. This includes degrees granted in a cooperative or work-study program.

Carnegie unit: A standard of measurement used for secondary education that represents the completion of a course that meets one period per day for one year.

Catholic school: (See Orientation.)

Cohort: A group of individuals who have a statistical factor in common, for example, year of birth.

College: A postsecondary school that offers general or liberal arts education, usually leading to an associate's, bachelor's, master's, doctor's, or first-professional degree. Junior colleges and community colleges are included under this terminology.

Combined elementary and secondary school: A school that encompasses instruction at both the elementary and the secondary levels. Examples of combined elementary and secondary school grade spans would be grades 1–12 or 5–12.

Computer and information science: A group of instructional programs that describes computer and information sciences, including computer programming, data processing, and information systems.

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer price index (CPI): This price index measures the average change in the cost of a fixed-market basket of goods and services purchased by consumers.

Control of institutions: A classification of institutions of elementary/secondary or higher education by whether the institution is operated by publicly elected or appointed officials (public control) or by privately elected or appointed officials and derives its major source of funds from private sources (private control).

Core subjects: *A Nation At Risk* asked that all students seeking a diploma be required to enroll in a core curriculum called "New Basics." The core subjects included in this plan are 4 units of English, 3 units of science, 3 units of social studies, 3 units of mathematics, and 0.5 units of computer science.

Cost of college attendance: Cost of living for students attending postsecondary institutions, including: tuition and fees, books, room and board, childcare, transportation, and other miscellaneous expenses.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures per pupil in enrollment: (See Expenditures.)

Current-fund expenditures: (See Expenditures.)

Current-fund revenues: (See Revenues.)

Dependent student: A student who under federal criteria is considered to be financially dependent on her or his parents or guardians. Most full-time students are considered dependent until they are 24 years old.

Disadvantaged urban: Students in this group live in metropolitan statistical areas and attend schools where a high proportion of the students' parents are on welfare or are not regularly employed. Schools were placed into this category on the basis of information about the type of community, the size of its population, and an occupational profile of residents provided by school principals participating in NAEP.

Doctor's degree: An earned degree carrying the title of Doctor. The Doctor of Philosophy degree (Ph.D.) is the highest academic degree and requires mastery within a field of knowledge and demonstrated ability to perform scholarly research. Other doctorates are awarded for fulfilling specialized requirements in professional fields, such as education (Ed.D.) musical arts (D.M.A.), business administration (D.B.A.), and engineering (D.Eng. or D.E.S.). Many doctor's degrees in both academic and professional fields require an earned master's degree as a prerequisite. First-professional degrees, such as M.D. and D.D.S., are not included under this heading. (See First-professional degree.)

Dropout: The term is used both to describe an event¾leaving school before graduating¾and a status¾an individual who is not in school and is not a graduate. Transferring schools, for example, from a public to a private school, is not regarded as a dropout event. A person who drops out of school may later return and graduate. At the time the person left school initially, he or she is called a *dropout*. At the time the person returns to school, he or she is called a *stopout*. Measures to describe these often complicated behaviors include the event dropout rate (or the closely related school persistence rate), the status dropout rate, and the high school completion rate.

Educational and general expenditures: (See Expenditures.)

Educational attainment: The highest grade of regular school attended and completed.

Elementary school: A school classified as elementary by state and local practice and composed of any span of grades not above grade 8. A preschool or kindergarten school is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Elementary/secondary school: As reported in this publication, includes only regular schools (i.e., schools that are part of state and local school systems, and also most not-for-profit private elementary/secondary schools, both religiously affiliated and nonsectarian). Schools not reported include subcollegiate departments of institutions of higher education, residential schools for exceptional children, federal schools for American Indians, and federal schools on military posts and other federal installations.

Employed: Includes civilian, noninstitutionalized persons who (1) worked during any part of the survey week as paid employees; worked in their own business, profession, or farm; or worked 15 hours or more as unpaid workers in a family-owned enterprise;

or (2) were not working but had jobs or businesses from which they were temporarily absent due to illness, bad weather, vacation, labor-management dispute, or personal reasons, whether or not they were seeking another job.

Engineering and engineering technologies: Instructional programs that describe the mathematical and natural science knowledge gained by study, experience, and practice and applied with judgment to develop ways to utilize the materials and forces of nature economically for the benefit of humanity. Include programs that prepare individuals to support and assist engineers and similar professionals.

English: A group of instructional programs that describes the English language arts, including composition, creative writing, and the study of literature.

Enrollment: The total number of students registered in a given school unit at a given time, generally in the fall of a year.

Expected family contribution (EFC): The amount that a family is expected to pay toward meeting costs of postsecondary attendance (students and parents of dependent students are both expected to make contributions). This amount is determined through an analysis of need (for example, the Congressional Methodology) and is based on taxable and nontaxable income and assets as well as family size, the number of family members attending postsecondary institutions, extraordinary medical expenses, and so forth. For dependent students, the EFC consists of both a parental contribution and a separately calculated student contribution. The minimum student contribution in 1988-89 was $700 for freshmen and $900 for other undergraduates.

Expenditures: Charges incurred, whether paid or unpaid, which are presumed to benefit the current fiscal year. For elementary/secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For institutions of higher education, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, extension of credit, or as agency transaction. Also, government expenditures include only external transactions, such as the provision of prerequisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions among the governments.

Academic support: This category of college expenditures includes expenditures for support services that are an integral part of the institution's primary missions of instruction, research, or public service. Includes expenditures for libraries, galleries, audio/visual services, academic computing support, ancillary support, academic administration, personnel development, and course and curriculum development.

Current expenditures (elementary/secondary): The expenditures for operating local public schools, excluding capital outlay and interest on school debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs. Beginning in 1980–81, expenditures for state administration are excluded.

Current expenditures per pupil in enrollment: (See Expenditures.) Current expenditures for the regular school term divided by the total number of students registered in a given school unit at a given time, generally in the fall of a year.

Current-fund expenditures (higher education): Money spent to meet current operating costs, including salaries, wages, utilities, student services, public services, research libraries, scholarships, fellowships, auxiliary enterprises, hospitals, and independent operations. Excludes loans, capital expenditures, and investments.

Educational and general expenditures: The sum of current-fund expenditures on instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, and awards from restricted and unrestricted funds.

Instruction: The category including expenditures of the colleges, schools, departments, and other instructional divisions of higher education institutions, and expenditures for departmental research and public service, which are not separately budgeted. Includes expenditures for both credit and noncredit activities. Excludes expenditures for academic administration where the primary function is administration (e.g., academic deans).

Scholarships and fellowships: This category of college expenditures applies only to money given in the form of outright grants and trainee stipends to individuals enrolled in formal coursework, either for credit or not. Aid to students in the form of tuition or fee remissions is included. College work-study funds are excluded and are reported under the program in which the student is working. In the tabulations in this volume, Pell Grants are not included in this expenditure category.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as enrollment, average daily attendance, or average daily membership.

Family income: The combined income of all family members 14 years old and older living in the household for the period of one year. Income includes money income from jobs; net income from business, farm, or rent; pensions; dividends; interest; social security payments; and any other money income.

Federal aid: Student financial aid whose source is the federal government. This aid can either be provided by or administered by a federal agency. Federal agencies providing aid include the Department of Education, Department of Health and Human Services, Department of Defense, Veterans Administration, and the National Science Foundation. Federal aid can be in the form of grants, loans, and work-study aid.

Federal funds: Amounts collected and used by the federal government for the general purposes of the government. There are four types of federal fund accounts: the general fund, special funds, public enterprise funds, and intragovernmental funds. The major federal fund is the general fund, which is derived from general taxes and borrowing. Federal funds also include certain earmarked collections, such as those generated by and used to finance a continuing cycle of business-type operations.

First-professional degree: A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is usually based on a program requiring at least 2 academic years of work prior to entrance and a total of at least 6 academic years of work to complete the degree program, including both prior-required college work and the professional program itself. By NCES definition, first-professional degrees are awarded in the fields of dentistry (D.D.S or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic (D.C. or D.C.M.), law (J.D.), and theological professions (M.Div. or M.H.L.).

First-time teachers: People who are teaching full time in the nation's school system this year for the first time. These teachers include recent college graduates, former substitute teachers, or people who had other jobs besides teaching either inside or outside of the field of education.

Fiscal year: The yearly accounting period for the federal government, which begins on October 1 and ends on the following September 30. The fiscal year is designated by the calendar year in which it ends; for example, fiscal year 1992 begins on October 1, 1991, and ends on September 30, 1992. (From fiscal year 1844 to fiscal year 1976 the fiscal year began on July 1 and ended on the following June 30.)

Foreign languages: A group of instructional programs that describes the structure and use of language that is common or indigenous to people of the same community or nation, the same geographical area, or the same cultural traditions. Programs cover such features as sound, literature, syntax, phonology, semantics, sentences, prose, and verse, as well as the development of skills and attitudes used in communicating and evaluating thoughts and feelings through oral and written language.

Free lunch eligibles: Families with school-aged children who fall below the poverty level and have no other significant assets are eligible to receive government assistance in the form of free or reduced-price school lunches.

Full-time enrollment: The number of students enrolled in higher education courses with total credit load equal to at least 75 percent of the normal full-time course load.

Full-time-equivalent (FTE) enrollment: For institutions of higher education, enrollment of full-time students, plus the full-time equivalent of part-time students as reported by institutions. In the absence of an equivalent reported by an institution, the FTE enrollment is estimated by adding one-third of part-time enrollment to full-time enrollment.

Full-time instructional faculty: Those members of the instruction/research staff who are employed full-time as defined by the institution, including faculty with released time for research and faculty on sabbatical leave. Full-time counts exclude faculty who are employed to teach less than two semesters, three quarters, two trimesters, or two 4-month sessions; replacements for faculty on sabbatical leave or those on leave without pay; faculty for preclinical and clinical medicine; faculty who are donating their services; faculty who are members of military organizations and paid on a different pay scale from civilian employees; academic officers whose primary duties are administrative; and graduate students who assist in the instruction of courses.

GED recipient: A person who has obtained certification of high school equivalency by meeting state requirements and passing an approved exam, which is intended to provide an appraisal of the person's achievement or performance in the broad subject matter areas usually required for high school graduation. (See General educational development test.)

General educational development (GED) test: A test administered by the American Council on Education as the basis for awarding a high school equivalency certification.

Geographic region: 1) The four regions used by the Bureau of Economic Analysis of the U.S. Department of Commerce, the National Assessment of Educational Progress, and the National Education Association are as follows (note that the National Education Association designated the Central region as Middle region in its classification):

Northeast
Connecticut
Delaware
District of Columbia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Central (Middle)
Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

Southeast
Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

West
Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oklahoma
Oregon
Texas
Utah
Washington
Wyoming

2) The regions used by the U.S. Bureau of the Census in Current Population Survey tabulations are as follows:

Northeast
(New England)
Maine
New Hampshire
Vermont
Massachusetts
Rhode Island
Connecticut

Midwest
(East North Central)
Ohio
Indiana
Illinois
Michigan
Wisconsin

(Middle Atlantic)
New York
New Jersey
Pennsylvania

(West North Central)
Minnesota
Iowa
Missouri
North Dakota
South Dakota
Nebraska
Kansas

South
(South Atlantic)
Delaware
Maryland
District of Columbia
Virginia
West Virginia
North Carolina
South Carolina
Georgia
Florida

(East South Central)
Kentucky
Tennessee
Alabama
Mississippi

(West South Central)
Arkansas
Louisiana
Oklahoma
Texas

West
(Mountain)
Montana
Idaho
Wyoming
Colorado
New Mexico
Arizona
Utah
Nevada

(Pacific)
Washington
Oregon
California
Alaska
Hawaii

Government appropriation: An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Government grant or contract: Revenues from a government agency for a specific research project or other program.

Graduate: An individual who has received formal recognition for the successful completion of a prescribed program of studies.

Graduate record examination (GRE): Multiple-choice examinations administered by the Educational Testing Service and taken by applicants who plan to attend certain graduate schools. Two generalized tests are offered, plus specialized tests in a variety of subject areas. Ordinarily, a student will take only the specialized test that applies to the intended field of study.

Grants: Also known as scholarships, these are funds for postsecondary education that do not have to be repaid.

Gross domestic product (GDP): Gross national product less net property income from abroad. Both gross national product and gross domestic product aggregate only the incomes of residents of a nation, corporate and individual, deriving directly from the current production of goods and services. However, gross national product also includes net property from abroad. (See also Gross national product.)

Gross national product (GNP): A measure of the money value of the goods and services available to the nation from economic activity. GNP can be viewed in terms of expenditure categories, which include purchases of goods and services by consumers and government, gross private domestic investment, and net exports of goods and services. The goods and services included are largely those bought for final use (excluding illegal transactions) in the market economy. A number of inclusions, however, represent imputed values, the most important of which is rental value of owner-occupied housing. GNP, in this broad context, measures the output attributable to the factors of production¾labor and property¾supplied by U.S. residents.

Guidance counselor: (See Staff, elementary/secondary education.)

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, 12 (in a 6-3-3 plan) or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

High school program: A program of studies designed to prepare students for their postsecondary education and occupation. Four types of programs are usually distinguished¾ academic, vocational, general, and personal use. An academic program is designed to prepare students for continued study at a college or university. A vocational program is designed to prepare students for employment in one or more semiskilled, skilled, or technical occupations. A general program is designed to provide students with the understanding and competence to function effectively in a free society, and usually represents a mixture of academic and vocational components. A personal use program provides a student with general skills in areas such as health, religion, and military science.

Higher education: Study beyond secondary school at an institution that offers programs terminating in an associate's, baccalaureate, or higher degree.

Higher education institutions (general definition): Institutions providing education above the instructional level of the secondary schools, usually beginning with grade 13. Typically, these institutions include colleges, universities, graduate schools, professional schools, and other degree-granting institutions.

Higher education price index: A price index that measures average changes in the prices of goods and services purchased by colleges and universities through current-fund education and general expenditures (excluding expenditures for sponsored research and auxiliary enterprises).

Humanities: Instructional programs in the following fields: area and ethnic studies, foreign languages, letters, liberal/general studies, multi-/interdisciplinary studies, philosophy and religion, theology, and the visual and performing arts.

Independent operations: A group of self-supporting activities under control of a college or university. For purposes of financial surveys conducted by the National Center for Education Statistics, this category is composed principally of federally funded research and development centers (FFRDC).

Inflation: An upward movement in general price levels that results in a decline of purchasing power.

Institutional support: The category of higher education expenditures that includes day-to-day operational support for colleges, excluding expenditures for physical plant operations. Examples of institutional support include general administrative services, executive direction and planning, legal and fiscal operations, and community relations.

Instruction: (See Expenditures.)

Instructional staff: Full-time-equivalent number of positions, not the number of different individuals occupying the positions during the school year. In local schools, includes all public elementary and secondary (junior and senior high) day-school positions that are in the nature of teaching or in the improvement of the teaching-learning situation. Includes consultants or supervisors of instruction, principals, teachers, guidance personnel, librarians, psychological personnel, and other instructional staff. Excludes administrative staff, attendance personnel, clerical personnel, and junior college staff.

Labor force: Persons employed as civilians, unemployed, or in the armed services during the survey week. The "civilian labor force" comprises all civilians classified as employed or unemployed. (See Employed and Unemployed.)

Life sciences: Life sciences are instructional programs that describe the systematic study of living organisms. Life sciences include biology, biochemistry, biophysics, and zoology.

Limited English proficient: A concept developed to assist in identifying those language-minority students (children from language backgrounds other than English) who need language assistance services, in their own language or in English, in the schools. The Bilingual Education Act, reauthorized in 1988 (P.L. 100-297), describes a limited-English-proficient (LEP) student as one who

1) meets one or more of the following conditions:
   a) a student who was born outside of the United States or whose native language is not English;
   b) a student who comes from an environment where a language other than English is dominant; or
   c) a student who is an American Indian or Alaskan Native and comes from an environment where a language other than English has had a significant impact on his/her level of English language proficiency; and
2) has sufficient difficulty speaking, reading, writing, or understanding the English language to deny him or her the opportunity to learn successfully in English-only classrooms.

In practice, many ways of making this determination about an individual student are being used by school systems across the United States. These include various combinations of home language surveys, informal teacher determination, formal interviews, and a number of types of assessment tests for classification, placement, and monitoring of progress.

Literacy: See supplemental note to *Indicator 31.*

Loan: Borrowed money that must be repaid.

Local education agency (LEA): (See School district.)

Master's degree: A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. One type of master's degree, including the Master of Arts degree, or M.A., and the Master of Science degree, or M.S., is awarded in the liberal arts and sciences for advanced scholarship in a subject field or discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program, for example, an M.Ed. in education, an M.B.A. in business administration, an M.F.A. in fine arts, an M.M. in music, an M.S.W. in social work, and an M.P.A. in public administration. A third type of master's degree is awarded in professional fields for study beyond the first-professional degree, for example, the Master of Laws (LL.M.) and Master of Science in various medical specializations.

Mathematics: A group of instructional programs that describes the science of logical symbolic language and its applications.

Metropolitan population: The population residing in metropolitan statistical areas (MSAs). (See Metropolitan statistical area.)

Metropolitan statistical area (MSA): A large population nucleus and the nearby communities that have a high degree of economic and social integration with that nucleus. Each MSA consists of one or more entire counties (or county equivalents) that meet specified standards pertaining to population, commuting ties, and metropolitan character. In New England, towns and cities, rather than counties, are the basic units. MSAs are designated by the Office of Management and Budget. An MSA includes a city and, generally, its entire urban area and the remainder of the county or counties in which the urban area is located. An MSA also includes such additional outlying counties that meet specified criteria relating to metropolitan character and level of commuting of workers into the central city or counties. Specified criteria governing the definition of MSAs recognized before 1980 are published in *Standard Metropolitan Statistical Areas: 1975,* issued by the Office of Management and Budget. New MSAs were designated when 1980 counts showed that they met one or both of the following criteria:

1) Included a city with a population of at least 50,000 within their corporate limits; or
2) Included a Census Bureau-defined urbanized area (which must have a population of at least 50,000) and a total MSA population of at least 100,000 (or, in New England, 75,000).

Minority: Any racial/ethnic group that is non-white is considered minority. (See Racial/ethnic group.)

Modal grade: The modal grade is the year of school in which the largest proportion of students of a given age are enrolled. Enrolled persons are classified according to their relative progress in school, that is, whether the grade or year in which they were enrolled was below, at, or above the modal (or typical) grade for persons of their age at the time of the survey.

A Nation at Risk: A report published by the U.S. Department of Education in 1983 highlighting deficiencies in knowledge of the nation's students and population as a whole in areas such as literacy, mathematics, geography, and basic science.

Natural sciences: A group of fields of study that includes the life sciences, physical sciences, and mathematics.

Nonmetropolitan residence group: The population residing outside metropolitan statistical areas. (See Metropolitan statistical area.)

Nonsupervisory instructional staff: Persons such as curriculum specialists, counselors, librarians, remedial specialists, and others possessing education certification but not responsible for day-to-day teaching of the same group of pupils.

Nursery school: (See Preprimary.)

Obligations: Amounts of orders placed, contracts awarded, services received, or similar legally binding commitments made by federal agencies during a given period that will require outlays during the same or some future period.

Orientation (private school): The group or groups, if any, with which a private elementary/secondary school is affiliated, or from which it derives subsidy or support. Such organizations include the following:

> **Catholic school:** A private school over which a Roman Catholic church group exercises some control or provides some form of subsidy. Catholic schools for the most part include those operated or supported by: a parish, a group of parishes, a diocese, or a Catholic religious order.
>
> **Other religious school:** A private school that is affiliated with an organized religion or denomination other than Roman Catholicism or that has a religious orientation other than Catholicism in its operation and curriculum.
>
> **Nonsectarian school:** A private school whose curriculum and operation are independent of religious orientation and influence in all but incidental ways.

Other technical/professional fields: A group of occupationally oriented fields, other than business, computer science, education, and engineering, which includes agriculture and agricultural sciences, architecture, communications, communications technologies, home economics, law, library and archival sciences, military sciences, parks and recreation, protective services, and public affairs.

Outlays: The value of checks issued, interest accrued on the public debt, or other payments made, net of refunds and reimbursements.

Part-time enrollment: The number of students enrolled in higher education courses with a total credit load less than 75 percent of the normal full-time credit load.

Percentile (score): A value on a scale of zero to 100 that indicates the percent of a distribution that is equal to or below it. A score in the 95th percentile is a score equal to or better than 95 percent of all other scores.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits and military pensions, but excludes transfers among persons.

Physical sciences: Physical sciences are instructional programs that describe inanimate objects, processes, or matter, energy, and associated phenomena. Physical sciences include astronomy, astrophysics, atmospheric sciences, chemistry, geology, physics, planetary science, and science technologies.

Postsecondary education: The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes programs of an academic, vocational, and continuing professional education purpose, and excludes vocational and adult basic education programs.

Poverty level: Poverty status is based on reports of family income on the March Current Population Survey. Families or individuals with gross incomes below the poverty threshold are classified as below the poverty level. Poverty thresholds in 1992 ranged from $7,143 for a person living alone to $28,745 for a family of four or more.

Prekindergarten: (See Preprimary.)

Preprimary: Elementary education programs for children who are too young for first grade. The year before first grade is called kindergarten; the year(s) before kindergarten is called preschool, nursery school, or prekindergarten. Not included in prekindergarten is essentially custodial care provided in private homes. Prekindergarten programs may be provided in regular elementary schools (with kindergarten, first- and higher grade programs) or in preschools (with only prekindergarten programs.)

Private school or institution: A school or institution that is controlled by an individual or agency other than a state, a subdivision of a state, or the federal government, which is usually not supported primarily by public funds, and is not operated by publicly elected or appointed officials.

Proprietary institution: An educational institution that is under private control but whose profits derive from revenues subject to taxation.

Purchasing power parity: A method of converting other countries' expenditures to U.S. dollars in order to compare expenditure rates. Purchasing power parity indices are calculated by comparing the cost of a fixed-market basket of goods in each country.

Racial/ethnic group: Classification indicating general racial or ethnic heritage based on self-identification, as in data collected by the Bureau of the Census, or on observer identification, as in data collected by the Office for Civil Rights. These categories are in accordance with the Office of Management and Budget standard classification scheme presented below:

American Indian or Alaskan Native: A person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition.

Asian or Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.

Black: A person having origins in any of the black racial groups in Africa. Normally

excludes persons of Hispanic origin except for tabulations produced by the Bureau of the Census, which are noted accordingly.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. Normally excludes persons of Hispanic origin except for tabulations produced by the Bureau of the Census, which are noted accordingly.

Reentrants: Teachers who left the school system for a period of time, and have now returned to classroom teaching.

Remedial education: Instruction for a student lacking the reading, writing, or mathematics skills necessary to perform college-level work at the level required by the attended institution.

Revenues: All funds received from external sources, net of refunds, and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts "in kind" are excluded as are funds received from the issuance of debt, liquidation of investments, and nonroutine sale of property.

Auxiliary enterprises: This category includes those essentially self-supporting operations that exist to furnish a service to students, faculty, or staff, and that charge a fee that is directly related to, although not necessarily equal to, the cost of the service. Examples are residence halls, food services, college stores, and intercollegiate athletics.

Current-fund revenues (higher education): Money received during the current fiscal year from revenue that can be used to pay obligations currently due, and surpluses reappropriated for the current fiscal year.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

Salary workers: Any person who worked one or more days during the previous year and was paid on the basis of a yearly salary is considered a salary worker.

Scholarships and fellowships: (See Expenditures.)

Scholastic Aptitude Test (SAT): An examination administered by the Educational Testing Service and used to predict the facility with which an individual will progress in learning college-level academic subjects.

School climate: The social system and culture of the school, including the organizational structure of the school and values and expectations within it.

School district: An education agency at the local level that exists primarily to operate public schools or to contract for public school services. Synonyms are "local basic administrative unit" and "local education agency."

School year: The 12-month period of time denoting the beginning and ending dates for school accounting purposes, usually from July 1 through June 30.

Science: The body of related courses concerned with knowledge of the physical and biological world and with the processes of discovering and validating this knowledge.

Secondary school: A school comprising any span of grades beginning with the next grade following an elementary or middle-school (usually 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Social and behavioral sciences: A group of scientific fields of study that includes anthropology, archeology, criminology, demography, economics, geography, history, international relations, psychology, sociology, and urban studies.

Social studies: A group of instructional programs that describes the substantive portions of behavior, past and present activities, interactions, and organizations of people associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes.

Socioeconomic status (SES): The SES quartile variable used for both High School and Beyond and the National Education Longitudinal Study of 1988 was built using parental education level, parental occupation, family income, and household items. Students were placed in quartiles based on their standardized composite score. By definition, one quarter of each cohort will reside in the bottom SES quartile, even if education levels, income, and the number of persons in more prestigious occupations increase. The terms high, middle, and low SES refer to the upper, middle two, and lower quartiles of the weighted SES composite index distribution.

Staff assignments, elementary and secondary school:

District administrative support staff: Those personnel that are assigned to the staffs of the district administrators. They may be clerks, computer programmers, and others concerned with the functioning of the entire district.

District administrators: The chief executive officers of education agencies (such as superintendents and deputies) and all others with district-wide responsibility. Such positions may be business managers, administrative assistants, coordinators, and the like.

Guidance counselors: Professional staff whose activities involve counseling students and parents, consulting with other staff members on learning problems, evaluating the abilities of students, assisting students in personal and social development, providing referral assistance, and working with other staff members in planning and conducting guidance programs for students.

Instructional (teacher) aides: Those staff members assigned to assist a teacher with routine activities associated with teaching (i.e., those activities requiring minor decisions regarding students, such as monitoring, conducting rote exercises, operating equipment, and clerking). Volunteer aides are not included in this category.

Librarians: Staff members assigned to perform professional library service activities such as selecting, acquiring, preparing, cataloging, and circulating books and other printed materials; planning the use of the library by students, teachers, and other members of the instructional staff; and guiding individuals in their use of library books and materials that are maintained separately or as part of an instructional materials center.

Other support services staff: All staff not reported in other categories. This group includes media personnel, social workers, data processors, health maintenance workers, bus drivers, security, cafeteria workers, and other staff.

School administrators: Those staff members whose activities are concerned with directing and managing the operation of a particular school. They may be principals or assistant principals, including those who coordinate school instructional activities with those of the local education agency (LEA) and other appropriate units.

Stopout: (See Dropout.)

Tax expenditures: Losses of tax revenue attributable to provisions of the federal income tax laws that allow a special exclusion, exemption, or deduction from gross income or provide a special credit, preferential rate of tax, or a deferral of tax liability affecting individual or corporate income tax liabilities.

Technical/professional fields: A group of occupationally oriented fields of study, other than engineering and computer science, that includes agriculture and agricultural sciences, architecture, business and management, communications, education, health sciences, home economics, law, library and archival sciences, military sciences, parks and recreation, protective services, and public affairs.

Total expenditure per pupil in average daily attendance: Includes all expenditures allocable to per pupil costs divided by average daily attendance. These allocable expenditures include current expenditures for regular school programs, interest on school debt, and capital outlay. Beginning in 1980–81, expenditures for state administration are excluded and expenditures for other programs (summer schools, community colleges, and private schools) are included.

Tuition and fees: A payment or charge for instruction or compensation for services, privileges, or the use of equipment, books, or other goods.

Type of higher education institutions:

4-year institution: An institution legally authorized to offer and offering at least a 4-year program of college-level studies wholly or principally creditable toward a baccalaureate degree. In some tables a further division between universities and other 4-year institutions is made. A "university" is a postsecondary institution that typically comprises one or more graduate professional schools. (See also University.)

2-year institution: An institution legally authorized to offer and offering at least a 2-year program of college-level studies that terminates in an associate's degree or is principally creditable toward a baccalaureate degree.

Undergraduate students: Students registered at an institution of higher education in a program leading to a baccalaureate degree or other formal award below the baccalaureate such as an associate's degree.

Unemployed: Civilians who had no employment but were available for work and (1) had engaged in any specific job-seeking activity within the past 4 weeks, (2) were waiting to be called back to a job from which they had been laid off, or (3) were waiting to report to a new wage or salary job within 30 days.

University: An institution of higher education that consists of a liberal arts college, a diverse graduate program, and usually two or more professional schools or faculties, and is empowered to confer degrees in various fields of study.

Urbanicity:

(1) In the Schools and Staffing Survey school location is categorized based on the classification in both the Common Core of Data (CCD) and the Quality Education data (QED), as drawn from U.S. Census data and definition. The results are summarized in three variables:

*Central city*¾central city of an MSA (Metropolitan Statistical Area).
*Urban fringe/large town*¾area surrounding a central city but within a county constituting an MSA.
*Rural/small town*¾outside an MSA.

(2) In the High School and Beyond Survey, urbanicity is classified based on the Curriculum Information Center code as follows:

Urban¾within a central city of an MSA.

Suburban¾within an MSA but outside the central city area.
Rural¾outside a designated MSA.

Vocational education: Organized educational programs, services, and activities that are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career, requiring other than a baccalaureate or advanced degree.

Work-study: A generic term for programs designed to provide part-time employment as a source of funds to pay for postsecondary education as well as a federal program that is administered through postsecondary institutions.

Year-round, full-time worker: One who worked primarily at a full-time civilian job for 50 weeks or more during the preceding calendar year.

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U.S. Department of Education
Online Library

Public Access via Internet
through the
National Library of Education's INet System

Individuals with access to the Internet can tap a rich collection of education related information at the U.S. Department of Education (ED), including:

- General Information about the Department's Mission, Organization, Key Staff, and Programs
- Information about Key Departmental Initiatives, such as GOALS 2000, Technology, Family Involvement, School-to-Work Programs, Standards, and Elementary and Secondary Schoolwide Projects
- Full-text Publications for Teachers, Parents, and Researchers
- Statistical Tables, Charts, and Data Sets
- Research Findings and Syntheses
- Directories of Effective Programs and Exemplary Schools
- Directory of Education-related Information Centers
- Announcements of New Publications and Data Sets
- Press Releases
- Selected Speeches and Testimony by the Secretary of Education
- Funding Opportunities
- Event Calendars
- Searchable ED Staff Directory
- Pointers to Public Internet Resources at ERIC Clearinghouses, Regional Laboratories, R&D Centers, and other ED-Funded Institutions
- Pointers to other Education Related Internet Resources

The Department's Internet site is maintained by the National Library of Education (NLE) in the Office of Educational Research and Improvement (OERI) on its Institutional Communications Network (INet). While still focusing primarily on research, improvement, and statistical information, INet also contains a substantial and steadily growing collection of information about programs and initiatives across the Department.

Our site is still relatively young (Gopher/FTP - October 93 and WWW - March 94) and you will continue to find sections under construction as we expand our collections and restructure them to facilitate access. We are committed to:

- Serve the needs of high end as well as low end users,
- Continue to expand our holdings of relevant and timely material,
- Explore ways to make our holdings more easily searchable.

Latest Developments

The GOALS 2000 legislation reauthorized OERI and created the National Library of Education (NLE), which is responsible for assembling and providing access to a comprehensive collection of education information, as well as promoting resource sharing and cooperation among libraries and other providers of education information. INet and ERIC are core components of a distributed electronic repository which NLE plans to develop in close collaboration with the National Education Dissemination System (NEDS), which also was established in OERI's reauthorization.

Latest Developments (continued)

In recent months, we have added significant full-text collections of legislation (GOALS 2000 and the Improving America's Schools Act) and standards documents. We are making more documents available in hypertext markup language (HTML) format on our World Wide Web server. The National Center for Education Statistics (NCES) has completely reorganized its Gopher server and added many survey data sets, reports, and tabulations.

Access Via Internet

Our **WWW Server** can be accessed at URL (uniform resource locator):

http://www.ed.gov/

The **Gopher Server**'s address is:

gopher.ed.gov

or select **North America—>USA—>General—>U.S. Department of Education** from the All/Other Gophers menu on your system.

FTP users can access the information by ftping to:

ftp.ed.gov (log on anonymous)

E-Mail users can get our catalog and instructions on the usage of our **Mail server** by sending e-mail to:
almanac@inet.ed.gov
in the body of the message type **send catalog**
(avoid the use of signature blocks and leave the Subject line blank)

Please note that:

- We do not offer public access Gopher or WWW clients. You must either have an appropriate Gopher or WWW client, such as NCSA Mosaic or Lynx, at your site or be able to telnet to a public access client elsewhere.
- You cannot access our public servers by telneting to our site. You will be denied telnet access.
- Gopher and Mosaic/Lynx are the preferred access methods. Our FTP directories remain somewhat cryptic and the e-mail server is by its very nature a slow method to get documents.

Questions and Comments

If you have any suggestions or questions about the contents of the WWW, Gopher, FTP, and Mail servers, please use one of the following addresses:

E-mail:	**inetmgr@inet.ed.gov** **gopheradm@inet.ed.gov** **wwwadmin@inet.ed.gov**	Telephone: Fax:	**(202) 219-1547** **(202) 219-1817**

Snail Mail:
INet Project Manager
National Library of Education
U.S. Department of Education/OERI
555 New Jersey Ave., N.W., Room 214
Washington, D.C. 20208-5725

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To help us improve future editions of *The Condition of Education*, we would greatly appreciate your comments. Please check the appropriate box or boxes for each question. You can return this survey by mail to the address listed on the reverse side of this form or by FAX to 202-219-1575.

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Supplemental tables	☐	☐	☐	☐	☐	☐
Supplemental notes	☐	☐	☐	☐	☐	☐
Standard error tables	☐	☐	☐	☐	☐	☐
Glossary	☐	☐	☐	☐	☐	☐
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The Condition of Education

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Overview

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Economic and Other Outcomes of Education

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